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MONTHLY

Labor Review

August 1948 Vol. 67 No. 2

British Labor Under the Labor Government

Joint Production Committees

Occupational Wage Differentials

United States Department of Labor • Bureau of Labor Statistics

UNITED STATES DEPARTMENT OF LABOR

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, *Chief, Office of Publications*

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This Issue in Brief . . .

EVER SINCE THE LABOR PARTY came into power in Great Britain, just before the close of the war, the status and role of labor became matters of speculation and curiosity. **BRITISH LABOR UNDER THE LABOR GOVERNMENT—PART I** (p. 117) is the first of two articles offering a general background answer. Rationing and price control, subsidized housing, expanded social security, and increased real earnings have provided a higher level of living to the British worker than before the war, despite widespread shortages of many essential goods and services. The gains, which have entailed the loss of no individual freedom, are attributable to full employment, strong unionism, and the political victory of the Labor Party. Part II will discuss the position of the trade-unions in relation to the Government.

One of the interesting features of the relationship of British labor to the national economic product is existence of labor-management production committees. During the war period the WPB had cognizance of some 5,000 such committees in the United States. What happened to them when the war ended is described in considerable detail in **JOINT PRODUCTION COMMITTEES, JANUARY 1948** (p. 123). It is significant that of 944 committees studied which operated during the war, 287 were still in existence. Of the 657 discontinued, only a fifth disbanded due to lack of interest. The most common concern of the committees studied was with safety, production, and employee suggestions, in that order.

The European Recovery Program and repeated criticism of it by the Russian-dominated secretariat of the World Federation of Trade Unions precipitated a crisis in that organization during the Rome meetings of its executive committee and executive bureau last May. The sessions of

these two bodies form the background of **INTERNATIONAL LABOR CONFEDERATIONS: II. THE WFTU** (p. 147). The United States and other non-Communist dominated delegates succeeded in reducing the power of the general secretary and establishing by resolution certain safeguards against use of the WFTU administrative apparatus for the furthering of Russian foreign policy.

While workers are thus becoming increasingly concerned with the international aspects of their affairs, the realities of their work-a-day problems are still with them. Such a one is **OCCUPATIONAL WAGE DIFFERENTIALS** (p. 127). Wage differentials provide compensation for workers in accordance with variations in skill, effort, and working conditions. The article examines a current cross-section view of occupational wage relationships and then reviews them historically since 1907.

The three technical notes in this issue are of special interest to habitual users of Bureau data. **WHOLESALE PRICE INDEX: POLICY ON REVISIONS AND CORRECTIONS** (p. 153) reveals the plans for a complete reappraisal of the wholesale price index. Improved sampling, revised weights, group reclassification, and re-examination of the present base period (1926) are in the offing, awaiting publication of the 1947 Census of Manufactures. **CONSUMERS' PRICE INDEX: RELATIVE IMPORTANCE OF COMPONENTS** (p. 156) is a technical extension of one of the points raised in the article, *The CPI—A Summary of Its Essential Features*, which appeared in the July issue. It presents the items and major groups of items of the CPI in terms of their relative importance. They constitute the value factors which enter into the index calculation. The computation and weighting methods are described in detail. **HOUSING STATISTICS, 1946 AND 1947: SAMPLING METHODS AND SURVEY TECHNIQUES** (p. 161) illustrates how local area housing studies are planned and samples selected, with particular emphasis on including sections where no building permit data are available. Test results are included showing the reliability of the total area samples for use in arriving at national estimates.

The Labor Month in Review

GENERAL BUSINESS ACTIVITY continued at a high level during July, with production, employment, and trade above the levels of a year ago. Prices were continuing to rise generally as the Congress met in special session on July 26. Wholesale prices advanced to a new high and consumers' prices seemed to be following. The steel industry, reversing its previous position, raised both the wages of its employees and the prices of its products. Except for the "captive" mines strike in coal, there were no nationally important disputes between labor and industry, and the prospects for few serious stoppages for the rest of the year appeared good.

New Records for Prices

Rising prices again overshadowed the other economic news during July—particularly the spectacular spurt in the price of meats and the advance in steel and nonferrous metal prices. The Bureau of Labor Statistics weekly wholesale price index reached 168.9 percent of the 1926 average in the week ending July 17, the highest it has been since the weekly index was started in 1932. The consumers' price index advanced 0.7 percent from mid-May to mid-June to a new high point—171.7 percent of the 1935-39 average. This was 9.3 percent above the previous year, and 74.1 percent above the August 1939 level. As in previous months, the increase in the cost of food, which comprises more than 40 percent of the index, was mostly responsible for the advance in the total index. Since the seasonal high point for food prices is generally not reached until September, there would not appear to be much prospect for any immediate decline in consumers' prices until autumn, when the price of meat and certain other food items may be expected to ease.

The most encouraging development affecting food prices in the longer run are the record corn crop which is predicted and the near-record wheat crop already partly harvested. Promising grain prospects throughout the world may mean less

urgent demands and the adjustment of domestic grain prices downward to the Government support level. Grains and cattle-feed prices declined considerably in July. With the ratio of feed per animal higher than it has been for a long time, the decline in grain prices will make it more profitable for farmers to increase the production of meat. However, the conversion of grain to meat is a process which takes several months for fowl, about 6 months for pork, and a year or more for beef. A number of years of good crops may be necessary to remove the accumulated deficit of farm animals in the country.

Following the lead of the U. S. Steel Corporation in the early part of the month, most of the major steel producers announced that prices would be quoted f. o. b. mill rather than delivered at destination. The action was taken after the United States Supreme Court ruled that the basing point practices followed by the cement industry violated the antitrust laws. The new pricing system means that steel costs will include freight from the mill to the point of destination instead of from the nearest basing point. While the full effects of the change are not readily apparent because of the complicated nature of the steel pricing system, it seems evident that certain consumers of steel remote from the steel mills will have to pay added freight charges. Steel users were also faced with announced increases of about 10 percent in the prices of finished steel products to compensate for "increased costs" in the steel industry.

Wage Adjustments

The effort to "hold the line" against wage increases, which was announced by the steel industry in April, was abandoned during July. Although the union had no recourse to strike action until the expiration of its contracts in the spring of 1949, the major producers yielded to union requests and granted increases averaging about 13 cents an hour. The action was taken after workers in most of the large mass-production industries had received increases. The settlement of the wage dispute between the UAW and the Ford Motor Co. followed an initial suggestion by the company that a wage cut might be necessary. Wage increases were granted in a number of other industries during the month.

The Bureau's statistics of average hourly earnings in manufacturing in June reflect the important wage adjustments granted between mid-May and

mid-June. Average hourly earnings increased by almost 2 cents to 131.9 cents, with somewhat larger gains reported in the durable goods industries. Some lengthening of the average workweek combined with the higher wage rates raised average earnings of factory workers in June to \$52.81—an all-time high.

Industrial Peace Likely

July was a relatively peaceful month in the relations between unions and management, and the outlook for operations free from strikes appeared excellent for most important industries. Only in the maritime industry, where strikes have been enjoined until September by injunctions under the Taft-Hartley Act, does a serious strike threat exist. The dispute in this case is largely over the issue of hiring halls which both the operators and National Labor Relations Board assert violates the closed-shop provisions of the Taft-Hartley law.

With the settlement of the "captive" coal miners' strike in early July, there were no work stoppages of national prominence for the remainder of the month. What might have been a serious loss of time and production was averted by the Ford Motor Co. agreement. Man-days lost by work stoppages in July were little different than the 2,000,000 lost during June.

The Democratic Party at its national convention in Philadelphia during July went on record for the repeal of the Labor Management Relations Act of 1947 and the substitution of "a just body of rules to assure free and effective collective bargaining." The Republican platform, adopted by that party a month earlier, made no specific commitment with regard to the controversial law, but declared: "We pledge continuing study to improve labor-management legislation in the light of experience and changing conditions."

New Peak in Employment

Census estimates of total civilian employment in June indicated a sharp increase to a new high of 61.3 million. The large gains occurred in both farm and nonfarm employment, with agriculture rising to its summer peak and industry quickly absorbing most of the large numbers of young people who come into the labor market at this time of the year.

Employment in nonagricultural establishments in June, as estimated by the Bureau of Labor Statistics, rose by 300,000 to almost 45 million, the highest level since the pre-Christmas record of 1947. This represented over a million more workers in industrial employment than a year ago, with gains mostly in manufacturing, construction, trade, and State and local government. Manufacturing employment increased significantly in the month, bringing the total to more than 16 million. Although the trend of the two previous months was reversed, the level in June was still below that of the early part of the year. In the industries manufacturing durable goods, a substantial decline in automotive employment, due to the recurring steel shortage, was only partly offset by the continued seasonal expansion in the logging and lumbering industries. A large gain in employment in the nondurable goods industries was chiefly concentrated in the food group. There was a sharp recovery in leather industry employment, which had shown some weakness in recent months, and a relatively early flattening-out of the seasonal slump in the textiles and apparel industries.

The early summer gain in construction employment brought the number employed in this industry to 2,180,000 during June. Continued increases are anticipated until about 2½ million workers are employed by September, when 1948 construction activity is expected to be at its peak. This forecast is based on a revised estimate of anticipated expenditures totaling 18 billion dollars for new construction in 1948, prepared jointly by the Bureau of Labor Statistics and the Office of Domestic Commerce. Earlier estimates, made last November, had placed the 1948 dollar volume of new construction at 15.2 billion and peak contract construction employment at 2,150,000. Upward revisions were made partly to allow for the enlarged scope of the definition of public utilities construction, but exclusive of that adjustment the previous estimate was raised by about 12 percent primarily because expenditures for new residential construction have been advancing more rapidly than anticipated last fall. Higher priced housing has predominated thus far this year, and the expectation that relatively more low-priced houses would be constructed has not been realized.

British Labor under the Labor Government

Part I.—Economic Position of Labor: Levels of National Income, 1938 and 1947, Workers' Gains in Earnings and Working Conditions

JEAN A. FLEXNER¹

IN VIEW OF Great Britain's continuing economic difficulties, no very marked improvement in the national level of living could have been expected since the end of hostilities, whatever the political complexion of the postwar Government. Such increases in net national product as have taken place were necessarily devoted largely to replacement of physical war losses and to balancing Britain's international accounts.

While the current level of national real income is about the same as prewar, the British wage earner can show substantial gains in comparison with the mid-1930's in respect to hours and earnings, diet, clothing, housing, and health. These improvements may be largely ascribed to more regular employment, virtual disappearance of unemployment, more equitable distribution of supplies through rationing of necessities, controlled prices of necessities, subsidized housing, and improved arrangements for meals in factories.

To what extent have these gains been made since the end of World War II? Controls and subsidies, adopted during the war in order to distribute scarce supplies more equitably, helped workers to maintain a better level of living than would have been possible otherwise. The retention of

these devices after the war, when shortages of civilian goods became less acute, made possible the improvement over prewar levels. In mid-1948 shortages of food, household goods, houses, and other commodities still persisted. However, since July 1945, certain services have been greatly extended—particularly social security, health, and safety programs—and better provision has been made for the education and welfare of children. Through collective bargaining and statutory action, hours have been shortened and wage rates further increased.

Moreover, these improvements have not involved the sacrifice of freedom to organize and to bargain collectively nor any substantial curtailment of individual liberty with respect to choice of jobs. In spite of an agreement by national leaders to arbitrate labor-management disputes during a 5-year reconstruction period, unauthorized strikes have been used by local groups somewhat more freely than in wartime. Consultation between labor, management, and Government on many issues has assumed new importance.

The gains which have been made and retained since VE-day are due in large part to the strong bargaining position of labor in a period of full employment, to a vigorous trade-union movement, and to the Labor Party's victory at the polls in July 1945.

¹ Of the Bureau's Office of Foreign Labor Conditions. Part II will appear in the October issue of the Monthly Labor Review. Both parts will be reprinted as Serial No. R1930.

National Income, 1938 and 1947

The total national cash income of the United Kingdom (including borrowing from abroad and sales of assets to foreigners) in 1947 was double that in 1938. However, the real level of consumption for the nation as a whole had not quite regained the prewar level in 1947. During the years 1940 through 1946, it had been lower than prewar. The situation is summed up by the following data on national and per capita personal expenditures revalued at 1938 prices:

Total cash resources (in millions) ¹	1938	1945	1947
£5,227	£9,205	£10,220	
Aggregate personal expenditures (in millions) at—			
Current prices	£4,288	£5,996	£7,421
1938 prices	£4,288	£3,921	£4,424
Population (in thousands)	47,494	49,108	49,748
Per capita personal expenditures at 1938 prices	£90.3	£79.8	£88.9

¹ Includes borrowing from abroad and sale of assets to foreigners as follows (in millions): 1938 £70; 1945 £380; 1947 £675. Source: Great Britain Treasury, National Income and Expenditure of the United Kingdom, 1947 (Cmd. 7371), tables 1, 20, and 21.

During the war years, consumer purchases were limited by severe shortages of civilian goods, by rationing of necessities, and by high prices of luxury items. Government expenditures reached 57 percent of gross national product in 1944 (compared with 15 percent in 1938). In 1945, the proportion was still high (49 percent), but by 1947 it had dropped to 22 percent, thus releasing a higher proportion of the total for personal consumption and private investment.

Gains of Industrial Workers

Although the per capita real income of the nation as a whole remained stationary, the real income of industrial wage earners before payment of direct taxes was about 20 percent higher in 1945, and 25 percent higher in 1947 than in 1938. After payment of direct taxes, wage earners' real income was 9 percent higher in 1945 and 20 percent higher in 1947. Available statistical measures indicate this rise.²

² For further discussion see Great Britain: Wage Trends and Wage Policies, 1938-47, Monthly Labor Review, September 1947, or Bull. No. 934.

	October 1938	Indexes July 1945	October 1947
(1) Weekly wage rates (September 1, 1939=100)	99.5	150.5	170
(2) Weekly earnings (October 1938=100)	100	180	203
(3) Weekly earnings after direct taxes	100	164	194
(4) Allen's cost of living index (1938=100)	100	150.9	162
(5) Real earnings before direct taxes (2÷4)	100	120	125
(6) Real earnings after direct taxes (3÷4)	100	109	120

¹ Annual average.

Sources: Weekly wage rates and earnings, Ministry of Labor. Prof. R. G. D. Allen's Cost of Living Index, in London and Cambridge Economic Service Bulletin I, Vol. XXVI, February 18, 1948 (pp. 18-19). Adjustment for direct taxation, in Economist Records and Statistics, July 3, 1948 (p. 16).

Average hours worked per week in 1945 (47.4) were a little higher than prewar (46.5) but in 1947 had been reduced to 45.2, without a corresponding reduction in wages.

The difference between the trend in wage rates and the trend in earnings reflects a shift of employment into higher paid occupations, more piece work and production bonuses, and overtime rates of pay. After the war, many union agreements were adjusted to provide overtime rates of pay starting after 44 hours, instead of after 47 or 48 hours.

Wages continued to rise during the first 5 months of 1948. In May 1948, the broadened weekly wage rate index was 5 percent above mid-1947. However, the interim retail price index rose even more; in May 1948 it was 8 percent above mid-1947. Retail price advances in the 11 months since June 1947 have whittled away some of labor's earlier gains.

In appraising the welfare of labor, account must be taken also of the reductions in scheduled work hours by collective agreements and the extension of vacations and holidays with pay.

After the end of the war, vacations with pay were granted to more workers, and existing plans were lengthened to include more time off than in prewar days. In 1938, an estimated 7¼ million wage earners received some paid vacations; by early 1947, the number had increased to almost 15

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million. The Wages Councils Act of 1945, applicable to substandard industries,³ permits orders providing longer paid vacations than the 1-week vacations authorized under the prewar Trade Boards Acts. In May 1947, more than 1,100 collective agreements (900 being industry-wide or district agreements) stipulated paid holidays; the same arrangements were generally observed by unorganized firms in these trades. Most of these agreements provided payment for 6 statutory holidays, in addition to 6 or more consecutive days' vacation.

Although weekly hours of work in Britain are still longer than in the United States, between July 1945 and May 1, 1948, scheduled hours of 7.5 million workers were reduced by 3 or 3½ hours a week, i. e., from 47 or 48 to about 44. These workers have generally also gained the 5-day week.

To a certain extent, these reductions have been offset by agreements to work overtime, at overtime rates of pay, although workers have not always shown eagerness to avail themselves of the opportunity for extra earnings. The National Union of Mineworkers agreed to extend until April 30, 1949, the November 1947 agreement to work overtime either by working an extra half hour each day, or an extra 5-hour shift every other Saturday. Even at pits that have voted for Saturday work, attendance on Saturdays has been irregular. On each Saturday during December 1947, an average of 185,000 tons of coal was mined. During January 1948, Saturday tonnage averaged 171,400 tons; while on February 7, only 131,700 tons were produced. In the cotton industry, about half the spinning section voted to work 3½ hours of overtime a week through the summer of 1948. The weaving section, however, rejected overtime by a two-thirds majority. Married women are reluctant to accept work schedules involving more than a 9-hour day, or a 5-day week on account of the difficulties of transportation, shopping, and care of children.

The steeply graduated income tax greatly reduced the incentive to work longer hours at overtime rates. The April 1948 budget offered some relief by lowering the tax rate on that part of taxable income falling between £125 and £250.

Social Security, Safety, and Education

In accordance with the Beveridge Report of 1942 recommending the creation of a comprehensive and unified system of social insurance, a Ministry of National Insurance was established and a Family Allowances Act was passed by the Coalition Government in June 1945. Under the Labor Government, which came to power pledged to complete the plan, four additional measures were enacted: The National Insurance Act, the Industrial Injuries Act, the National Health Services Act, and the National Assistance Act.⁴

The Family Allowances Act provided weekly payments of 5s. to every family for each child after the first, up to the age of 15, or 16 years provided he or she was attending school or was apprenticed. The Industrial Injuries Act (1946) extended the system of workmen's compensation, raised benefits, and eliminated court administration. The National Insurance Act (1946) consolidated the schemes for insurance against sickness, maternity, unemployment, and old age, and extended coverage to the entire British population, including all the gainfully occupied and even those not gainfully employed. Employed persons qualify for all benefits, self-employed for all except unemployment, and non-employed for old-age and survivors' insurance only. There are special insurance provisions for married women.

These schemes will be financed by contributions from employers, beneficiaries, and the State. The scale of contributions and of benefits has been raised. However, the State will ultimately pay the major part of the costs. The workmen's compensation system has become contributory. One feature of the financing of the National Insurance Act is the power given the Treasury, to reduce or increase contributions for temporary periods as a means of stabilizing purchasing power and employment.

The National Health Services Act (1946) supplements the health-insurance scheme by providing a complete Government-financed system of hospital and medical services available to practically the entire population, free of charge, without insurance qualification.

³ See British Wages Councils Act, 1945, in *Monthly Labor Review*, July 1945 (pp. 120-123) or Serial No. R. 1761.

⁴ The Family Allowances Act became effective August 1946, and the others, July 1948.

The National Assistance Act (1948) liberalizes public welfare services and provides aid to the needy who may not be adequately cared for by national insurance. The cost of assistance will be borne chiefly by the National Treasury, and in part by the local authorities.

Safety programs have received greater emphasis since the nationalization of the mines (effective January 1, 1947) as part of the National Coal Board's efforts to attract young recruits to the industry and to conserve the present labor force. Dust-prevention methods are being vigorously promoted, both in South Wales which is particularly subject to the silicosis hazard, and in other coal divisions, through dust-prevention committees on which coal-mine inspectors, the National Coal Board, and the National Union of Mine-workers are represented. The Miners' Welfare Commission is operating a medical rehabilitation center.

Many of the working parties, set up by Sir Stafford Cripps for 18 industries under private management,⁵ recommended improvements in working conditions, the construction of better factory buildings, and stricter enforcement of the Factory Act standards regarding welfare, health, and sanitation. Some of the older textile mills have made improvements designed to attract labor, including the installation of modern rest rooms, washing facilities, clothing lockers, repainting, and better ventilation.

In April 1947, the school-leaving age was raised to 15, as provided in the Education Act of 1944. The Labor Party promised in 1945 to raise it to 16 "at the earliest possible moment." However, owing to the shortage of teachers and school facilities, it will be some time before this can be done.

A bill to reorganize and to improve the vocational counseling and juvenile placement services of the Ministry of Labor was introduced into Parliament in March 1948, in accordance with the report of a Committee on the Juvenile Employment Service, September 1945. This bill also provides for extended training of persons above the compulsory school-attendance age, in order

to facilitate the mobility and re-allocation of labor in the interests of maintaining full employment. In the placement of boys and girls, individual vocational interests are being given primary consideration; young people under 18 who are seeking work are not subject to the employment controls now in force.

Housing

During the Second World War, while housing construction was at a standstill, 500,000 individual houses were destroyed or rendered uninhabitable and another 4 million damaged, out of a total of 13 million dwellings in the United Kingdom. Much of the damage was concentrated in a few urban areas—London, the southern ports, and some industrial towns.

In March 1945, the Government estimated that 750,000 dwellings were urgently required and a further 500,000 were needed to replace houses already condemned or to lessen overcrowding. Labor pledged vigorous prosecution of the house-building program "until every family in this island has a good standard of accommodation," and also a full long-range program of land-use planning. The New Towns Act (1946) and the Town and Country Planning Act of 1947 dealt with the latter aspect.

Progress on the housing program was somewhat slower than had been anticipated. However, in 3 years' time, slightly over 700,000 additional dwelling units were provided and 770,000 dwellings less severely damaged in the war were repaired.

*Dwelling units completed,
April 1, 1945–April 30, 1948*

New permanent houses.....	268,999
Temporary houses.....	148,740
Existing premises converted or adapted.....	93,051
War damaged dwellings repaired for occupation.....	134,982
Other ¹	54,504
Total.....	700,276
Occupied dwellings—war damage repaired.....	770,000
Grand total.....	1,470,276

¹ Includes requisitioned properties, temporary huts, and service camps.

Source: Ministry of Health Housing Return, April 30, 1948 (Cmd. 7417), p. 3.

⁵ For further discussion, see Part II—Position and Role of Trade-Unions which will appear in Serial No. R1930 and in the October 1948 issue of the Monthly Labor Review.

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Most of the new houses have been built by local authorities. The Central Government provides the following types of assistance: (1) substantial subsidies, for the purpose of keeping rents low; (2) an act enabling local authorities to acquire land expeditiously; (3) bulk purchase of supplies by the Ministry of Works (since 1945), including complete prefabricated houses; (4) special training schemes arranged by the Ministry of Labor, in consultation with building unions and employers; (5) use of prisoner-of-war labor on preparation of housing sites and in brick making; (6) priorities on labor and materials for low-cost public house-building projects. Local authorities are guided in preparing plans by instructions issued by the Ministry of Health; and in November 1945, these were revised to provide a higher than prewar standard of accommodation.

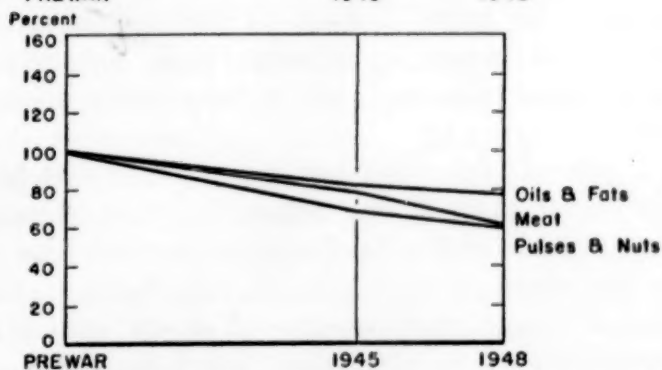
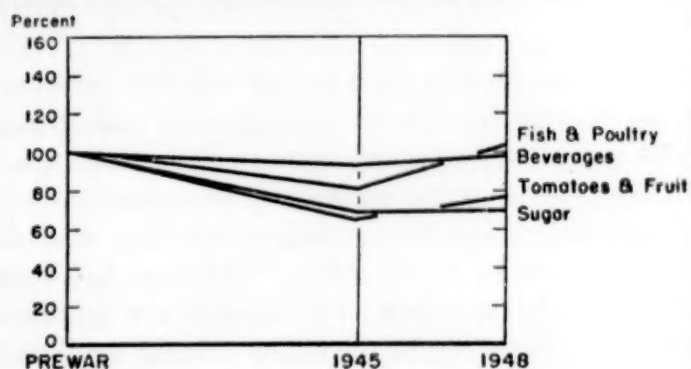
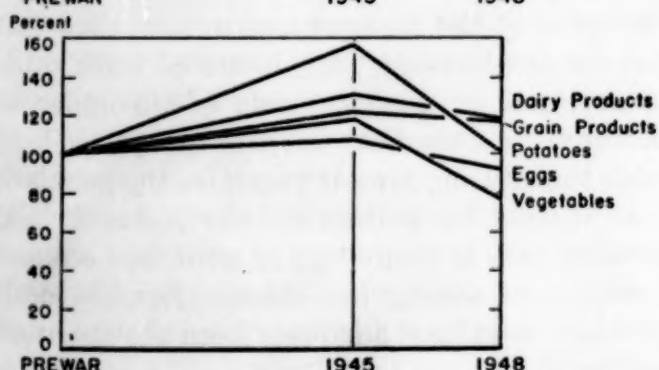
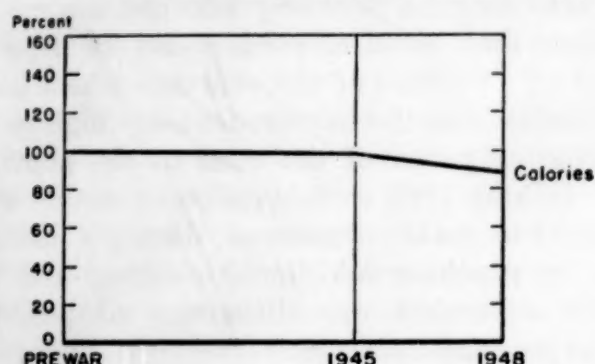
Miners, agricultural workers, and key workers in other industries have received housing priority.

Diet and Clothing

During the war (1939-45) the number of daily calories per capita declined only slightly, but there was a marked deterioration in the quality of the national diet. Cereal foods and potatoes were substituted for meat, poultry, and fish, and vegetable proteins for animal proteins. The consumption of oils and fats, and sugar and sirups declined. The consumption of dairy products, however, increased.

In the first 3 postwar years, national food supplies were adversely affected by (1) the ending of lend-lease, (2) the severe weather in early 1947, and (3) the worsening terms of trade especially in 1947-48. The Economic Survey for 1948 estimated an average daily caloric intake of 2,681 during the first half of 1948, compared to 2,987 prewar, and 2,940 in 1945. Average consumption of most foods was lower in the first half of 1948

PER CAPITA FOOD CONSUMPTION IN THE UNITED KINGDOM



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Source: Gt. Britain, Ministry of Food, Food Consumption Levels in United Kingdom.
Gt. Britain Treasury, Economic Survey for 1948

than in 1945, and the increases in sugar, and in tomatoes, fruits and poultry did not counterbalance substantial declines in meat, milk, eggs, and potatoes.

Changes in the per capita food consumption, as a result of the war, and the postwar economic crisis, are shown in the accompanying tabulation.

	Percent of prewar	
	1945	1948
	(January-June)	
Calories per capita.....	98.0	89.4
Dairy products.....	130.0	119.3
Grain products.....	122.2	118.0
Potatoes.....	156.2	100.2
Eggs and egg products.....	106.5	91.8
Vegetables.....	118.3	76.3
Beverages.....	93.2	98.6
Tomatoes and fruit.....	64.2	76.3
Fish, game, poultry, etc.....	84.8	103.0
Sugar and sirups.....	67.4	69.2
Oils and fats.....	82.2	76.9
Meat.....	79.0	61.3
Pulses and nuts.....	66.7	60.4

Source: Great Britain, Ministry of Food, Food Consumption Levels in United Kingdom (1947), and Great Britain Treasury, Economic Survey for 1948.

These national averages conceal the increased consumption by low-income groups and groups with special nutritional needs. Extra rations of certain foods were provided for persons with special needs and those manual workers who did not have access to canteens. Children and nursing and expectant mothers received extra milk at reduced prices or free. Extra cheese and meat rations have been allotted at various times to agricultural workers, seamen and fishermen, underground miners, and certain other heavy workers.

In general, the wage earner's postwar diet has been better than it was before the war, because price controls and subsidies have enabled him to buy his whole ration—a ration calculated on the basis of nutritional needs. A more equitable distribution of food supplies has been obtained

not only through rationing, but also under schemes providing for milk distributed free or at reduced prices, cheap and nutritious meals in canteens, and low-cost meals in "British restaurants" established by the Government in working-class districts.

Normal supplies of clothing and household goods fell off more than a third and more than a half, respectively, during the 6 years of war. By allocating a large proportion of the supplies of raw materials to the manufacture of utility grades of clothing and furniture, the Government has aided the low-income family. Since the end of hostilities, supplies both of clothing and household goods for the home market (including utility grades) increased substantially. At the beginning of 1947, the amount of rationed footwear and clothing was about three-fourths of prewar consumption, whereas hardware, hollow ware, and other domestic supplies had regained the prewar level. But demand still exceeded supply. "For a large section of the people," the Economic Survey for 1947 stated, "the present food and clothing rations are more than they could normally afford even in good prewar years, and are much more than they could afford in years of depression. * * * Part of the shortage which now exists results from the unprecedentedly high level of purchasing power of the mass of the population." In May 1948, certain rationing restrictions were eased to enable consumers, during a limited period, to purchase additional clothing and to liberalize somewhat the allocations of priority rights to purchase furniture.

In spite of the meager and monotonous diets, overcrowded housing, long hours of work during the war, and the general strain of life under war conditions, all medical indexes point to better health than during prewar years, for the population as a whole. In particular, the reduced infant mortality rate is a sure sign of a marked economic improvement among low-income families and a diet which is at least adequate from the nutritional standpoint.

Joint Production Committees, January 1948

FRANK S. McELROY and
ALEXANDER MOROS¹

ALTHOUGH MANY of the labor-management committees established during the war were discontinued when wartime pressures ended, reports to the Bureau of Labor Statistics indicate that several hundred such committees are still functioning as a part of peacetime manufacturing operations.

The idea of utilizing joint labor-management committees for the improvement of production and the achievement of more harmonious relations between management and workers was not entirely new to American industry when World War II began. It had not achieved widespread acceptance, however, although a few extensively publicized applications attested to its practicability.

In 1942, the War Production Board, as a part of its intensive drive to raise production levels, began to urge establishment of labor-management committees in all war plants. Each plant complying with this request was asked to register its action with the WPB. By 1945 a total of over 5,000 such committees had been registered. In some instances, it was apparent that registrations represented only paper compliance; in others, joint committees were actually organized but were discontinued after a short trial period. However, in a check of the registration list, about 3,200 plants stated that their committees were actively

functioning in July 1945. A substantial number of these reported that the committees had been successful and that it was planned to continue them after the war.²

In January 1948, the Bureau of Labor Statistics circularized 3,023 plants on the final WPB registration list to determine the current status of the committees which had been recorded as functioning in July 1945.³ Of the 1,272 replies received, 944 provided usable information, 148 indicated that no records of wartime activities were available, and 180 indicated that no committees had ever been established despite their previous registration of a functioning committee with the WPB. To similar inquiries sent to 580 local unions listed as bargaining agents in the plants which provided positive information regarding their committees, 126 replies were received.

Comparison of the information independently supplied by the management and union officials indicated substantial agreement in respect to the history and activities of the committees. In only nine instances were there significant differences in the replies, in which management reported the existence of a committee while the union reply indicated that no "labor-management committee" had been established. These seeming contradictions apparently reflected differences of interpretation as to the proper constitution of a labor-management committee. In each instance, however, there was a committee which included union members.

No attempt was made to follow up the inquiries addressed to the plants which failed to reply. This precludes any general conclusion as to the proportion of all wartime committees which were sufficiently successful to warrant their continuance into peacetime operations. It appears logical, however, to assume that interest in the successful operation of their committees would have prompted a response from most plants which have continued this cooperative relationship.

The 944 plants for which usable information was received included 787 plants in which a union had been recognized as a bargaining agent and 157

² Labor-Management Production Committees, by Dorothea de Schweinitz, in *Labor and Nation*, October 1945 (pp. 29-31).

³ On the liquidation of the WPB, this registration list was placed in the custody of the Bureau of Labor Standards of the U. S. Department of Labor. It was made available to the Bureau of Labor Statistics through the cooperation of that agency.

¹ Of the Bureau's Industrial Hazards Branch. Background and interpretative material of great value in the analysis of the reports were furnished by Dorothea de Schweinitz, one time Chief, Committee Standards and Analysis Branch, War Production Drive Division, WPB.

nonunion plants. Of these, 564 union and 93 nonunion plants reported that their committees had been discontinued at the end of the war or shortly thereafter. Committees were reported as still functioning in 223 union and 64 nonunion plants.

Composition and Function

The Basic Guide for Labor-Management Committees, published by the WPB in 1945, stressed the fact that there is no typical pattern for a labor-management committee either in respect to its membership or its functions. The Guide pointed out, however, that eight general policies commonly constitute the basis for the successful operation of a committee. These were:

- (1) Labor and management will work together to improve production.
- (2) The work of the joint production committee shall not duplicate, conflict with, or replace recognized procedures for handling grievances and other collective-bargaining matters.
- (3) Activities of the production committee shall be of mutual benefit to both management and labor and shall not further the special interests of either group.
- (4) Neither management nor labor shall sustain losses as a result of the work of the committee.
- (5) Management representatives on the committee will have sufficient authority to secure prompt decisions on committee recommendations.
- (6) Labor representatives, comparable in number with the management representatives, will have sufficient prestige and authority to secure full cooperation of the workers on committee programs.
- (7) Labor and management each shall choose its own representatives. If there is a recognized collective-bargaining agent, it shall name the labor representatives.
- (8) The scope of the committee's work and the authority delegated to it will be clearly defined, with provision for adjustments as new problems arise.

Among the problems directly related to production, which the Guide suggested as suitable for committee consideration, were improvement in method or design, stores control, maintenance, plant lay-out and housekeeping, care of tools and equipment, conservation and salvage, nonfinancial incentives, and employee suggestion systems. Problems related to manpower included absenteeism and turn-over, upgrading and training, recruiting and replacement, safety, nutrition and health, transportation and rationing, housing, and placement of returned veterans. The Guide also stressed the value of the committees in promoting

war-bond, blood-donor, and fund drives and in the development and operation of informational programs for employees.

Discontinued Committees

It was strikingly evident from many of the reports that a large number of the wartime committees were organized simply as a gesture of compliance to the WPB request or as a means of handling the extraordinary problems of wartime operations. Many committees functioned only in connection with bond drives, rationing, share-the-ride programs, and similar strictly wartime activities. Others were concerned primarily with developing methods of reducing absenteeism—also a problem of particular wartime significance. It was not surprising that most of these committees were discontinued as soon as the wartime pressure ended. The leading reason given for discontinuance generally was "end of war" (272 committees) or "lack of interest" (135 committees), the latter apparently being an appraisal based upon post-war operating conditions.

TABLE 1.—Status of wartime labor-management production committees in 944 manufacturing plants, by size and unionization of plant, 1947

Plant size in 1947 (in number of employees)	Total number of plants	Plants with active committees in 1947			Plants in which committees were discontinued		
		Total	Union	Non-union	Total	Union	Non-union
All plants.....	944	287	223	64	657	564	93
Under 50.....	50	14	6	8	36	16	20
50 and under 100.....	73	27	16	11	46	33	13
100 and under 500.....	307	110	83	27	197	175	22
500 and under 1,000.....	145	52	44	8	93	85	8
1,000 and under 2,000.....	94	29	25	4	65	62	3
2,000 and under 3,000.....	33	8	7	1	25	23	2
3,000 and under 4,000.....	27	8	7	1	19	19	0
4,000 and under 5,000.....	14	3	2	1	11	11	0
5,000 and over.....	37	5	5	0	32	26	6
Unknown.....	164	31	28	3	133	114	19

In general, the comments regarding the wartime activities of the committees, which were discontinued at the end of the war, indicated that they had functioned successfully. In some instances, it was stated, that they had been highly effective in all phases of their activities. Of the entire group of 657 discontinued committees, only 133 were reported as having been discontinued because they were ineffective.

The available information did not indicate whether either labor or management made any

effort to fit the discontinued committees into peacetime operations. The fact that 620 of the 657 discontinued committees were in existence for over a year, and that 229 had a life history of over 3 years, indicates, however, that in most instances

officers or plant stewards. In the majority, however, the labor membership included both union officials and rank-and-file union members. In plants in which the bargaining unit did not cover all employees, the nonunion employees usually were given a part of the representation on the committees.

Concentration of all joint labor-management activities in one general committee was reported to be the most common practice, although it was not unusual to delegate particular activities to specialized subcommittees. Most common among the special subcommittees were those particularly concerned with safety, employee suggestion systems, and employee recreation programs.

Inasmuch as the reports indicated only the activities in which the committees had participated during the last half of 1947 and did not list any other activities in which they may have been

TABLE 2.—Reasons for discontinuing labor-management production committees active in January-June 1945, by duration of committee

Reason for discontinuing committee	Total number of committees	Number of committees in existence—					
		Under 6 mo.	6 and under 12 mo.	1 and under 2 yr.	2 and under 3 yr.	3 yr. and over	Unknown
All committees.....	657	15	22	104	164	229	123
End of war.....	272	0	3	36	69	119	45
Ineffective.....	133	8	13	31	37	26	18
Lack of interest.....	135	4	6	24	40	46	15
Plant closed after war.....	14	1	0	3	2	7	1
Problems handled by other unreported methods.....	19	0	0	3	6	7	3
No reason given.....	84	2	0	7	10	24	41

they were given a reasonable trial. Some of the plants indicated that, despite the discontinuance of the committees, many of the activities developed by the committees were being continued.

Active Committees in 1947

The 287 plants reporting active committees in 1947 ranged in size from only 15 employees to over 40,000 employees. The group included 223 unionized plants and 64 nonunion plants.

Labor and management were reported as being equally represented on most of the active committees, although a few had a larger membership from one side than from the other. Generally, those with an unequal distribution of membership had more labor than management representatives. The size of the active committees ranged from 3 to 27 members, the most common sizes being either 6 or 10 members.

Management representation on the committees most commonly included both policy-making and operating officials. About one-fourth of the committees, however, had only operating officials to represent management, and another small group reported that only policy-making officials participated in the meetings.

In the unionized plants, labor representation on the committees almost invariably included some of the elective officers of the unions. About one in five committees restricted membership to union

TABLE 3.—Labor-management committee activities in 223 union and 64 nonunion manufacturing plants during last half of 1947

Subjects considered	Number of plants reporting action on each subject					
	Total		Union		Nonunion	
	Number	Percent	Number	Percent	Number	Percent
All plants reporting.....	287	100.0	223	100.0	64	100.0
Production problems (efficiency, etc.).....	221	77.0	170	76.2	51	79.7
Suggestions by workers.....	214	74.6	160	71.7	54	84.4
Care of tools and equipment.....	163	56.8	116	52.0	47	73.4
Improving work quality.....	197	68.6	148	66.4	49	76.6
Curtailling absenteeism.....	184	64.1	147	65.9	37	57.8
Job training.....	87	30.3	68	30.5	19	29.7
Job evaluation.....	85	29.6	70	31.4	15	23.4
Production time standards (piece rates, premium rates, etc.).....	93	32.4	74	33.2	19	29.7
Safety.....	243	84.7	186	83.4	57	89.1
Welfare (child care, housing, transportation, etc.).....	83	28.9	60	26.9	23	35.9
Health problems (medical care, sanitation, first aid, etc.).....	167	58.2	122	54.7	45	70.3
Recreation.....	131	45.6	94	42.2	37	57.8
Others.....	53	18.5	37	16.6	16	25.0

authorized to engage, it was impossible to define the scope of a typical committee. The wide range of subjects reported as having been considered during this relatively short period indicates, however, that committee procedures generally are very flexible and that practically any problem affecting both management and labor may be presented for consideration.

The particular types of problems most commonly reported as having received committee attention during the period were safety, production problems, and employee suggestion systems. At least three-fourths of the committees reported activity in each of these fields. Other problems receiving attention in at least half of the committees included improvement of work quality, curtailment of absenteeism, employee health problems, and care of tools and equipment. Nearly half of the committees devoted some time to the development of employee recreation programs. Job training, job evaluation, and employee welfare programs were included in the activities of more than a fourth of the committees.

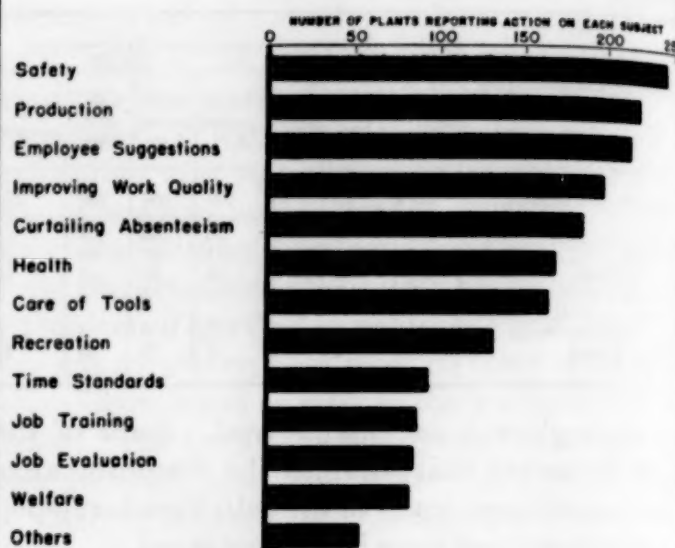
Regular scheduled meetings were reported for most of the active committees, the intervals ranging from 3 times a week to once in each quarter. The most popular schedule, reported for 107 committees, was once each month. Weekly meetings were the rule for 37 committees, and biweekly meetings were scheduled for 34 others.

Minutes of each meeting were recorded by most of the active committees, although common practice is to keep labor-management committee meetings as informal as possible and to reach decisions through general agreement rather than by vote. In some instances, the minutes were intended only for reference in future meetings and

were not duplicated for distribution. More commonly, however, the minutes were distributed

ACTIVITIES OF 287 LABOR-MANAGEMENT PRODUCTION COMMITTEES

Last Half of 1947



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

to all interested persons and, in a few instances, they were given general publicity to acquaint all employees with the activities of the committee.

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Occupational Wage Differentials, 1907-1947

HARRY OBER¹

WAGE DIFFERENTIALS by occupation are of basic importance in industry. They provide a means not only for compensating workers in accordance with differences in skill, effort, and working conditions, but also for attracting labor to the skilled trades which require years of training and investment by the workers of both time and money to acquire the essential skills. Each establishment, therefore, deals with wages in two ways: the level of wage rates by occupation, and the differences in rates between one type of labor and another.

Two major aspects of occupational wage relationships are considered: a cross-sectional review of wage differentials by occupation as they exist currently; and an analysis of changes in these differentials since 1907. Despite the seemingly endless variation, especially among different occupational classifications, rates at any one time fluctuate within certain limits: within an establishment, and from industry to industry, between the highest and lowest occupational rates (usually from the skilled to the unskilled rates). The question is, can these variations be so described as to provide more precise knowledge about the United States wage structure? And, if a fairly accurate picture of current occupational wage differentials is obtained, can such data be considered reliable over a long period of time?

¹ Of the Bureau's Division of Wage Analysis. Donald Helm of the Division provided valuable assistance in the preparation of the basic data and in their interpretation.

Basis and Scope of Analysis

Occupational wage relationships as used in this study relate to measures of typical spreads in rates between occupations of varying job requirements. The level of wages is dealt with only indirectly, to indicate the effect of certain types of increases in wage rates on occupational differentials.

Measures of typical spreads were computed as follows: for each industry, all available occupational rate data were expressed as percentages of selected unskilled jobs; in the current periods janitors and hand truckers, singly or in combination, most frequently served as a base. In earlier periods, when detailed classifications for unskilled labor were not available, common labor was used as a base. This procedure yielded, for selected skilled occupations in a given industry, a percentage differential above or below the selected unskilled occupational rates.² For the analysis of cents-per-hour differences between skilled and unskilled, absolute differences between the same selected skilled and unskilled occupations were computed.

To summarize percentage differentials for a wide variety of industries, it was necessary to disregard specific occupational titles. The data were, therefore, grouped into three broad classes: skilled, semiskilled, and unskilled. Criteria were developed for the classification of specific occupations into each of these classes, with certain further distinctions for subdividing the semiskilled and unskilled classes into two groups each. The differentials for each class were then arrayed, regardless of industry, and a median, as well as a range, representing the middle half of the array were obtained. This detail applied to only the analysis of the current situation.

For measuring the trend in occupational differentials, only the spread between skilled and unskilled rates was employed. In earlier periods the Bureau's studies related primarily to skilled

² This procedure does not necessarily yield the best results for all purposes. Detailed studies of wage relationships in specific industries indicate that the best results for specific industries are obtained when indexes are first developed on an establishment basis, before averaging, rather than on the basis of occupational average earnings. This procedure involves too much detail for the general conclusions dealt with in this article. (See Occupational Wage Relationships, Series 1, Nos. 1 to 11, mimeographed.)

and unskilled occupations. This, however, is no serious drawback since the extremes of the occupational-rate ladder define the limits of the spread within which all other rates are found. A narrowing of the spread between skilled and unskilled rates reflects, therefore, a narrowing of differentials between all occupations.

Occupational-wage information for the current years, 1945 to 1947, were obtained from the Bureau's numerous wage studies during this period.³ These data relate mainly to manufacturing industries; but valuable information was also available for the building trades. The data for earlier periods are less extensive. Moreover, the data for any two periods have not been collected on the same basis, and are, therefore, not strictly uniform. Despite these limitations, fairly extensive occupational wage data are available for 1907, 1919, 1931-32, 1937-40, and 1945-47, which provide a reliable basis for evaluating the trend in the spread between skilled and unskilled rates.

Cross-Section Review of Wage Relationships

In an analysis of the occupational wage-rate structure, the first objective is to find the prevailing differentials among skilled, semiskilled, and unskilled occupations. For this purpose, all occupations, regardless of industry, were classified into these three broad classes. Definitions of each class and of the two subgroups of semiskilled and of unskilled, with indexes for each, are given in table 1.

Skilled occupational rates in manufacturing industries, on the average, were about 55 percent above unskilled in 1945-47. There was, of course, considerable variation among individual skilled occupations. The range including the middle half of all occupational indexes is from 45 to 70 percent above the unskilled rates.

For unskilled occupations, the two groupings roughly separate light from heavy laboring tasks. The median index for the first group was 100, or the same as the average for janitors and hand truckers that were generally used as a base; the range of the middle half of the occupational indexes varied from 95 to 105. Generally, such occupations as watchmen were found below the

base occupational rates and hand truckers above. The median index for the second group was 15 percent above the base, with an interquartile range from 105 to 120. These unskilled occupations, as the definition indicates, usually required heavier laboring tasks as well as the use of a variety of mechanical aids.

TABLE 1.—*Relationships between earnings of skilled, semiskilled, and unskilled occupations, in manufacturing industries,¹ 1945-47*

[Average earnings for janitors and hand truckers=100]

Types of occupations	Occupational indexes	
	Median	Range (middle half of all indexes)
SKILLED Occupations comprising the trades or crafts that normally require an extensive learning period under formal apprenticeship or equivalent arrangements. Within the limits of each trade or craft the work requires planning of projects, determination of sequence of operations, and responsibility for accuracy of final results. It also requires knowledge of use of characteristic tools, machine and measuring instruments, as well as knowledge of certain basic principles relating to materials and to standard computations. Depending upon the specific arrangement of production in an establishment, workers in these occupations may be used on varying assignments or in the more skilled phases of recurring operations.	155	145-170
SEMISKILLED—GROUP 1 Occupations that are limited in scope to part of a trade or to the operation of a specific machine or unit of equipment. Within the limits of the work there is opportunity for independent judgment based on extensive experience. The work requires care of the machine, knowledge when the work is or is not in accord with specifications, and making the necessary adjustments to assure accuracy. It also requires the use of relevant tools and measuring devices.	135	125-145
SEMISKILLED—GROUP 2 Occupations that involve highly repetitive operations, where the work sequence is wholly predetermined. The use of judgment is limited to recognition when the work is not in accord with acceptable standards. When anything goes wrong, other, more skilled, workmen or supervisors are called upon to make the necessary adjustment. The learning process is generally short, and the major emphasis in learning is to aid the worker in producing an acceptable amount and quality of output.	115	110-125
UNSKILLED—GROUP 1 Occupations that involve handling of heavy objects or materials, such as in loading and unloading, in stacking, hoisting, or hauling. The work in these occupations is arduous and is frequently performed under unpleasant conditions, because of exposure to weather, fumes, heat, or unclean surroundings. These occupations also require some knowledge in the use of simple tools or equipment, such as hooks, shovels, wheelbarrows, crowbars, and various lifting devices.	115	105-120
UNSKILLED—GROUP 2 Occupations that comprise janitorial, protective, and other light unskilled work such as maintaining grounds in trim, clean, and orderly appearance. Simple tools may be used, such as brooms, shovels, lawn mowers. The work is either inside or within easy reach of shelter.	100	95-105

¹ Data from 42 industries were used in the computation of the indexes. The number of industries from which pertinent data were available for each of the groups of occupations varied somewhat.

Semiskilled occupations, also in two groups, differentiate highly repetitive, short-cycle tasks, from those involving considerably more varied

³ See Industry Wage Studies, Wage Structure, Series 2, Nos. 1 to 63. (Mimeographed.)

above. experience and operations. The median index for the simpler types of operations was 115, about the same as that for the heavier unskilled laboring jobs. The interquartile range, however, was somewhat wider, from 10 to 25 percent above the selected unskilled occupations. The semiskilled occupations with more varied requirements had a median index of 135, and a range from 125 to 145. To a large extent, therefore, the pay levels of many of the semiskilled occupations partially overlap both skilled and unskilled rates.

This is not surprising. Among the semiskilled occupations, incentive methods of pay are a much greater factor than in the other two classes. Since these occupations are, for the most part, involved in the basic mass-production processing operations, emphasis on output is of primary importance. The chief requirements may be defined as dexterity and appreciation of timing. Need for knowledge of work processes, tools, and equipment is very limited. Sureness of movement derived from repetition and exact timing are generally as important as other elements of skill among the semiskilled.

By measuring the typical spreads in rates between skilled and unskilled occupations in various industries, certain useful observations may be made. First, industries that employ unskilled labor under unpleasant and arduous conditions or that have no unusually high skill requirements, show a narrow spread (less than 45 percent) between skilled and unskilled rates. Among such industries are mechanical rubber goods, soap and glycerin, leather tanning, copper alloying, rolling, and drawing. Second, industries that have rather high skill requirements or that employ unskilled labor under less arduous conditions exhibit a wide spread in rates between skilled and unskilled occupations. Such industries include tool and die jobbing shops, seamless and full-fashioned hosiery, and garment industries. Third, if incentive earnings are widely prevalent among semiskilled workers, individual earnings are frequently as high or higher than those of skilled workers on a time basis. This in turn may influence the rates of skilled workers on a time basis in order to maintain traditional differentials. Also, industries located in the South would be influenced, to a substantial degree, by the characteristic wider spread in rates

between skilled and unskilled occupations found in that region.

It is important to indicate that the median minimizes the influence of extremes. For example, in the dyeing and finishing industry some skilled occupations show extremely wide differentials (over 100 percent) above the unskilled rates, but these are isolated instances; all other skilled occupations show much narrower differentials. In the machinery industry (1945), patternmakers earned on the average 75 percent above janitors, and hand truckers, and tool and die makers 71 percent above; but most of the other skilled occupations showed differentials that ranged from 50 to 60 percent above unskilled labor. In tool and die jobbing shops (1945), on the other hand, where skill requirements are exceptionally high, tool and die makers' earnings were about double the selected unskilled rates. These unusually high or low differentials for individual occupations generally fall on either side of the range that includes the middle half of the occupational differentials.

Characteristically the spread in rates between skilled and unskilled occupations vary substantially by region (table 2). In the South, for example, where the median index of the skilled rates is 170 in 1945-47, the widest range is prevalent. In the Far West, the spread is generally least. In the North Atlantic States and in the Middle West, skilled rates had median indexes of 155 and 150. In general, the spread in rates between skilled and unskilled occupations seems to be influenced considerably by the degree of industrialization in a particular region, and by the demand and supply of unskilled labor. It is not unusual, in some southern metalworking industries, to find highly skilled occupations with rates three times as high as for unskilled occupations. In other parts of the United States such variations are unusual. In general, skilled rates in the South (particularly in skilled occupations with a high degree of demand from a number of industries) are not much lower than in some northern regions of the United States; unskilled labor rates, however, are substantially lower than in other parts of the country.

Changes in Percentage Relationships

The available data indicate a definite long-term trend (from 1907 to 1947) for wage rates between

skilled and unskilled occupations to narrow (table 2). In 1907, for example, skilled rates were on the average about double those of unskilled rates. In

TABLE 2.—Relationship between earnings of skilled and unskilled occupations, in manufacturing, selected periods, 1907 to 1947, by region¹

Average earnings for representative unskilled occupations=100

Region	Occupational index	
	Median	Range (middle half of all indexes)
United States:		
1907	205	180-280
1918-19	175	150-225
1931-32	180	160-220
1937-40	165	150-190
1945-47	155	145-170
Northeast:		
1907	200	175-245
1918-19	165	150-235
1931-32	175	155-215
1937-40	(²)	(²)
1945-47	155	145-175
South:		
1907	215	195-235
1918-19	195	175-230
1931-32	190	165-235
1937-40	(²)	(²)
1945-47	170	150-195
Middle West:		
1907	190	170-250
1918-19	175	145-235
1931-32	170	150-215
1937-40	(²)	(²)
1945-47	150	140-165
Far West:		
1907	185	165-200
1918-19	170	160-195
1931-32	160	145-170
1937-40	(²)	(²)
1945-47	145	140-165

¹ The regions used in this study include: *Northeast*—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *South*—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; *Middle West*—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; *Far West*—Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

² Regional data for period (1937-40) insufficient to warrant presentation of separate regional indexes.

1947, on the other hand, skilled occupational rates were higher by only half as much as unskilled rates; that is, the spread over these 40 years has been reduced by about a half. There was some variation in the trend from region to region, but on the whole all regions participated in this decline in the spread.

Although rates of change in the spread between skilled and unskilled wages do not appear to be uniform from period to period, the decline in the spread averaged, over the 40 years, about 1 percent a year. A major portion of the decline for the United States as a whole, however, seems to have occurred between 1907 and 1919. By 1932, a depression year, some widening of the spread is indicated. Subsequently, little change

occurred until about 1940; since then the decline was again accelerated. This behavior of differentials between skilled and unskilled rates seems to suggest that cyclical changes in the demand for labor have an important influence on the spread between skilled and unskilled rates. While no year-by-year series is available for the manufacturing industries, there is good reason to conclude that much of the narrowing in the spread of wages occurred during the First World War and immediate postwar years. Once the narrowing had taken place, relative stability existed until the depression, when some widening took place. During the Second World War and postwar period, the narrowing of differentials was again accelerated.

The Bureau's studies of union wage scales in the building trades, made annually since 1907, are of special importance for analyzing the trend in differentials between skilled and unskilled occupations (table 3). It is also significant that since bargaining generally takes place on an individual craft basis, there is less opportunity to be concerned with the relationships of all occupations. Moreover, individual contractors

TABLE 3.—Relationships between union wage scales of journeymen and laborers and helpers in the building trades, United States, 1907-47

Average for laborers and helpers=100					
Year	Index	Year	Index	Year	Index
1907	185	1921	168	1935	170
1908	188	1922	174	1936	172
1909	191	1923	180	1937	173
1910	192	1924	180	1938	173
1911	195	1925	181	1939	174
1912	197	1926	177	1940	174
1913	197	1927	180	1941	175
1914	199	1928	179	1942	175
1915	199	1929	179	1943	176
1916	199	1930	177	1944	176
1917	191	1931	179	1945	176
1918	183	1932	179	1946	175
1919	180	1933	182	1947	175
1920	166	1934	178		

Cents-per-hour differences					
Year	Cents	Year	Cents	Year	Cents
1907	20	1921	42	1935	54
1908	21	1922	42	1936	55
1909	23	1923	49	1937	56
1910	25	1924	53	1938	56
1911	25	1925	54	1939	56
1912	26	1926	55	1940	56
1913	26	1927	60	1941	56
1914	27	1928	60	1942	56
1915	28	1929	60	1943	56
1916	29	1930	62	1944	56
1917	29	1931	64	1945	56
1918	30	1932	54	1946	55
1919	34	1933	54	1947	54
1920	41	1934	52		

⁴ These between differences

typically specialize in limited phases of construction such as plumbing and carpentry, and are less involved in relating wages between occupations than employers in manufacturing establishments. It is of prime interest, therefore, to find similar tendencies operating in the building trades as in other industries.

From 1907 to 1947, average differentials between the skilled and the unskilled building trades declined from 85 to 43 percent. From 1907 to 1914, the spread between the skilled and unskilled rates widened from 85 to 99 percent. After 1916 it began to narrow and continued to narrow rapidly until 1920 when it reached 66 percent. By 1923, differentials had widened again to 80 percent and stayed at this level throughout the 1920's. During World War II years, they narrowed again at an accelerated rate until the narrowest point of 43 percent was reached in 1947.

Some tentative observations regarding the effects of general employment conditions on the differentials between skilled and unskilled occupations can be made from these data. Percentage occupational differentials tend to narrow during periods of increasing employment opportunities. During periods of sharp declines in employment opportunities, on the other hand, the relative spread between skilled and unskilled rates tends to widen again, but there is no return to the spread of the former years.

The changes in percentage relationships between occupational rates appear to have been the result primarily of the greater sensitivity of unskilled than skilled rates to the cyclical fluctuations in business conditions. In other words, unskilled wages show larger increases in times of rising employment opportunities, and greater declines in depression years than do skilled wages.⁴ As evidence to support these conclusions, the Bureau's index of urban wage rates for the period from October 1943 to April 1947 is presented (table 4). This index is based on selected occupations representing skilled, semiskilled, and unskilled rates in manufacturing.

In general, the data show that from October 1943 to April 1947, rates of skilled workers increased least (27.7 percent), those of semiskilled workers showed a higher increase (34.5 percent),

while those of unskilled workers increased most (35.7 percent). Regionally the same general conclusions hold for most of the regions although in some (New England and Middle Atlantic regions) the magnitudes of the increases are reversed for the semiskilled and unskilled groups. In most regions the contrast in magnitude of wage changes, in percentage terms, is sharpest between the skilled on the one hand and the semiskilled and unskilled occupations on the other; there is less contrast between the latter two groups. For the most part incentive pay, mainly prevalent among the semiskilled occupations, accounts for the erratic behavior of changes between semiskilled and unskilled occupations.

TABLE 4.—Percent increase in urban wage rates, by industry group and skill group, and by region, October 1943 to April 1947

Industry group and region	Percent increase, October 1943 to April 1947			
	Total, all skills	Skilled workers	Semi-skilled workers	Unskilled workers
All manufacturing; United States.....	32.3	27.7	34.5	35.7
INDUSTRY GROUPS				
Food and kindred products.....	34.3	28.3	35.1	38.8
Tobacco manufactures.....	41.3	30.1	40.2	48.8
Textile mill products.....	51.5	45.3	58.5	52.3
Apparel and allied products.....	47.9	34.2	49.5	42.4
Furniture and finished lumber products.....	44.9	40.9	44.3	55.3
Paper and allied products.....	35.3	28.0	34.4	40.9
Printing, publishing, and allied industries.....	46.9	45.0	49.6	51.4
Chemicals and allied products.....	37.8	34.7	37.3	40.7
Products of petroleum and coal.....	31.7	28.8	31.7	34.7
Rubber products.....	34.0	30.9	34.1	38.5
Leather and leather products.....	46.9	47.9	45.1	54.0
Basic iron and steel.....	25.2	21.4	22.7	38.8
Shipbuilding.....	18.8	15.9		24.4
Metalworking (except basic iron and steel and shipbuilding).....	27.5	23.2	29.0	31.2
REGIONS				
New England.....	33.8	27.2	37.8	37.5
Middle Atlantic.....	36.1	29.9	39.3	38.7
Border.....	27.9	21.4	29.3	35.7
Southeast.....	46.8	37.3	50.8	52.4
Great Lakes.....	27.9	24.9	28.2	30.5
Middle West.....	37.0	32.2	36.5	45.3
Southwest.....	28.2	24.4	31.6	33.3
Mountain.....	37.4	34.9	37.1	41.0
Pacific.....	29.4	26.2	31.2	31.2

The general tendency observed for all manufacturing industries combined is also present in each of the separate industry groups for which data are available. Here too, the contrast in magnitudes of the wage changes is sharpest, when skilled occupations are compared with the semiskilled and unskilled, and less pronounced or reversed when the latter two groups are compared. In summary, these data indicate that during the war and postwar years relative wages of unskilled workers rose more than those of any

⁴ These conclusions relate, of course, to changes in percentage differences between skilled and unskilled occupations. In terms of cents-per-hour differences, however, the picture is somewhat different (see p. 132).

other groups.⁵ However, before any definite conclusions are formulated as to the meaning of these changes, cents-per-hour differences should be considered, because they have not followed the same trend as percentage changes.

This finding is not unexpected. Over the past 40 years, concern with the welfare of the lowest income groups has been increasing. This was especially evident during the years of both World Wars and of the immediate postwar periods when consumer prices rose sharply. During inflationary times, pressures for increases among the lowest wage brackets are greatest. During the Second World War, the War Labor Board favored differential treatment of the lower paid workers on the principle that their wages were "substandard."

Differential increases for unskilled labor during the past 40 years, however, cannot be attributed entirely to welfare methods. There were, also, important technical and economic factors which made possible proportionately greater increases in unskilled wages. Further, there was more mechanization of unskilled tasks in industry than of skilled operations. The mechanization consisted of extensive adoption of handling equipment for hoisting, loading, stacking, and inter-process movement of materials. In addition to planning of work, advance scheduling and improvements in methods of doing have been increasingly introduced in unskilled operations. These changes not only made it possible economically to compensate unskilled labor better, but more important, many unskilled operations became specialized and moved up to the semiskilled category.

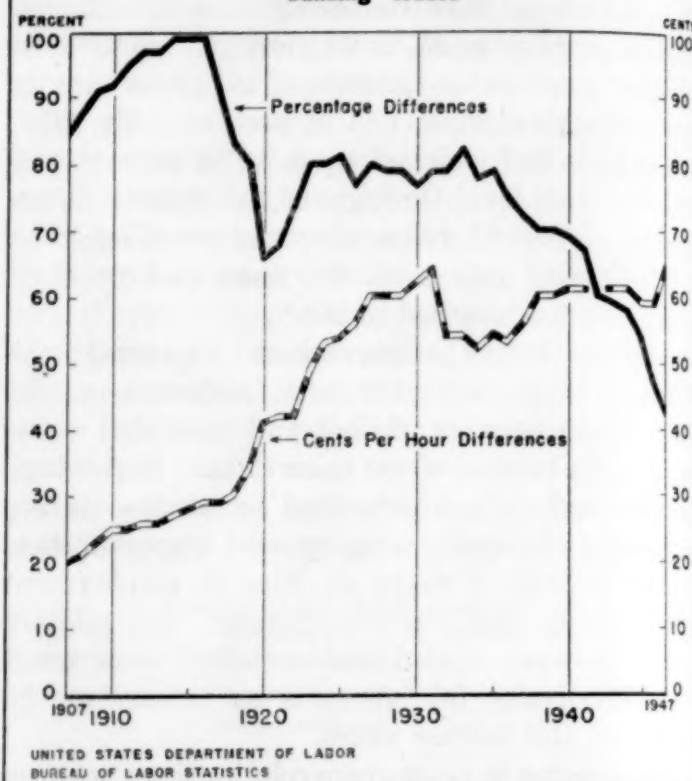
Changes in Cents-Per-Hour Differences

In this section the differences in wage rates between skilled and unskilled occupations from one period to another will be discussed in terms of cents per hour for selected occupations. On the whole, the procedure used in the analysis of percentage differences will also apply in this analysis: the skilled jobs for each industry will be compared

⁵ If a longer period is considered, although the data are very fragmentary, the same observations may be made. In the machinery industries, for example, unskilled occupations increased about 400 percent from 1907 to the current years, while machinists rates increased only 360 percent. In foundries, paper and pulp manufacture, and in iron and steel the percentage increases for laborers appear to be substantially greater than those of the more skilled occupations. In the building trades, union wage scales for laborers and helpers increased more than fivefold, while the skilled trades increased less than fourfold.

with the same selected unskilled jobs as in the previous analysis. To achieve greater comparability from period to period only those industries will be used in which wage studies have been made in both periods.

WAGE DIFFERENTIALS BETWEEN JOURNEYMEN, LABORERS AND HELPERS Building Trades



The available data indicate that cents-per-hour differences between skilled and unskilled occupations do not move in the same direction as percentage differences. Most useful for this purpose are the data on union wage scales in the building trades, available on a year-to-year basis since 1907 (see table 3). Cents-per-hour differences increased gradually from 1907 to 1918; they increased more rapidly through World War I and the immediate postwar years, when percentage differences narrowed. From 1938 to 1947, a period of rapid decline in percentage differences, cents-per-hour differences remained practically unchanged.

Cents-per-hour differences were also computed for a series of 17 manufacturing industries for the periods 1937-40 and 1945-47. In these industries, the differences between skilled and unskilled occupations increased from an average of 30 cents

⁶ Data was from 1907 to both periods. They further differences remaining almost unchanged. ⁷ The value to skilled and high and low occupation and of the

in the earlier period to 43 cents in the current period. There was also considerable increase in the dispersion of absolute differences. In 1937-40, for example, the middle half of the differences varied from 25 to 35 cents, and in 1945-47 the variation was from 32 to 57 cents per hour. As indicated earlier this was a period of rapid narrowing in percentage differences. Thus, unlike the building trades in which cents-per-hour differences were stable while percentage differences narrowed during these years, in manufacturing cents-per-hour differences increased while percentage differences narrowed substantially.⁶

Effects of Specific Types of Wage Changes

To illustrate the effects of various types of wage changes on percentage and cents-per-hour differences between skilled and unskilled occupations,⁷ three basic types of wage changes, which actually occurred in specific industries during recent years, are given in table 5: A—when uniform cents-per-hour increases are granted to all employees, percentage differences between skilled and unskilled occupations decline while cents-per-hour differences remain the same; B—when uniform percentage increases are granted, cents-per-hour differences increase but percentage differences remain the same; and C—when skilled rates are increased more in cents per hour than unskilled and the larger cents-per-hour increase for skilled occupations is not sufficient to equal the percent increase for the unskilled, percentage differences narrow while cents-per-hour differences increase. Combinations of A and B occurring simultaneously in different establishments or industries, or alternate increases (percentage one time and cents-per-hour another), may also result in a change similar to C.

When detailed analysis is confined to the recent war and postwar years, the following is character-

istic: during the early war years (up to about October 1942) when controls on wages were tightened, general wage changes in cents per hour were the prevalent type; from 1942 to VJ-day general wage changes were rigidly controlled, and changes which affected only portions of establishments or industries or single occupations predominated; during the postwar years, general wage changes were again resumed. At no time, however, were general wage changes granted wholly in percentage or cents-per-hour terms. Some industries and establishments granted cents-per-hour increases, some gave uniform percentage increases, and others often granted general increases in cents per hour during one period and in percent during another. The net result, however, for manufacturing as a whole seems to be a narrowing of percentage differences and an increase in cents-per-hour differences. In the building trades, however, cents-per-hour differences remained stationary for some time while percentage differences were narrowed.

TABLE 5.—Illustrations of the effects of various types of wage increases on percentage and cents-per-hour differences between skilled and unskilled occupations

Type of wage-change situation	Occupation		Differences between unskilled and skilled in—	
	Cents per hour		Per-cent	Cents
	Unskilled	Skilled		
A—Uniform cents-per-hour increase:				
First period.....	50	100	100	50
Second period.....	60	110	83	50
B—Uniform percent increase:				
First period.....	50	100	100	50
Second period.....	55	110	100	55
C—Varying cents or percent increases:				
First period.....	50	100	100	50
Second period.....	60	115	92	55

Rising prices change the value of cents-per-hour differences; that is, while at one wage-rate level 1 or 2 cents difference between one occupation and another may be impressive, such small differences become insignificant when wage and price levels rise substantially. For differences in compensation to be of value to the worker, their purchasing power must be large enough so that the rewards of greater effort or skill can be appreciated.

In the administration of wages, narrowing differentials (in percentage terms) between skilled

⁶ Data were also prepared on union wage scales in printing and trucking from 1907 to 1947. On the whole the data show the same kind of behavior of both percentage and cents-per-hour differentials as in the building trades. They further confirm the conclusion that when wages are rising, percentage differences tend to narrow while cents-per-hour differences are increasing or remaining stable. In these industries cents-per-hour differences have been almost unchanged since the early 1930's.

⁷ The varying effects of specific types of wage changes that are related here to skilled and unskilled occupations are also applicable to any situation where high and low rates are increased regardless of occupation. Thus, in a specific occupation where a range of rates prevails the effects would differ at each end of the range and at any gradation between the extremes.

and unskilled occupations and their influence on the value of cents-per-hour differentials provide more limited opportunities for varying the occupational rates between these extremes as occupations become more specialized and differentiated. An average spread of 55 percent (in 1945-47) between skilled and unskilled occupations provides a basis for a fairly limited number of rate steps of sufficient magnitude to be appreciated by the workers. Even an average difference of 43 cents per hour between skilled and unskilled occupations (this represents a 13-cent increase from 1937-40 to 1945-47) provides a fairly narrow opportunity for setting more than a limited number of meaningful rate steps for occupations between skilled and semiskilled. Cents-per-hour differentials no doubt have to be greater now than before the war to be

meaningful, if substantial differences in labor requirements are involved.

Logically, such changes should be expected to influence simplification of rate structures. In practice, something of this sort has happened in recent years in the application of a limited number of labor grades (single rates or ranges of rates) in many establishments. The labor grade system makes it possible to differentiate occupations, as tasks become specialized, into any number of classifications, representing different work requirements. At the same time, it is recognized that in terms of wage rates varying occupations coincide and are so grouped. Thus, differentials of sufficient quantity to be meaningful can be set up within the narrowing limits between skilled and unskilled rates.

Job-Classification Wage Schedules for Commercial Telegraphers

WAGE SCHEDULES based on job classifications have been adopted for the 40,000 employees of the Western Union Telegraph Co. represented by the Commercial Telegraphers' Union, Western Union Division, AFL.

After 3 years of joint effort by the union and the company, every job has been classified, described, and given a job rate. The wage schedule includes starting rates of pay, the different amounts allowed

for progression steps, and the job rates themselves. Titles and descriptions agreed upon for the jobs were published in the Commercial Telegraphers' Journal for July 1947; the new rates, including the 8-cent increase which became effective April 1, 1948, are given in the Journal for May 1948.

Before the standardization of the pay schedules, the discrepancies between rates for the same classes of work were so great that it was generally accepted by the company and the union that certain persons would receive larger increases in pay than others.

Apparel:
Clothing
Clothing
Apparel
Trim
Chemical
Comp
Drugs
Explos
Indus
Paint
Plasti
Soap
Synth
Synth
Chem
Electrical
Auto
Batter
Comm
Elect
Elect
Elect
Insul
Radi
Elect

See foot

Summaries of Special Reports

Injury Rates in Manufacturing, First Quarter, 1948

IN A SEASONAL UPSWING, the injury-frequency rate for manufacturing moved from its low of 3.4 disabling injuries per million employee-hours worked in December 1947 to 13.6 in January, to 14.1 in February, and to 14.5 in March 1948.

The average rate of 14.1 for the first quarter of 1948, however, was slightly lower than that (14.3) for the fourth quarter of 1947. In this respect the 1948 first-quarter injury record points to a probable continuance of the improvement in work safety achieved in manufacturing during 1947. In comparison with the first-quarter averages of 16.0 in 1947 and 18.2 in 1946, the 1948 first-quarter average of 14.1 represents a substantial reduction in the frequency of disabling work injuries.

It is estimated that approximately 114,800 employees of manufacturing establishments were disabled for 1 or more days because of work injuries experienced during the first quarter of 1948. About 400 of the injured workers died as a result of their injuries and about 5,400 others were known to have suffered permanent physical impairments up to the time the reports for the quarter were prepared. Later information concerning the final outcome of the injuries which were first reported as temporary disabilities may require some increase in these estimates of the more serious cases.

Working time lost during the quarter by these injured persons is estimated as about 2,296,000 man-days, representing an estimated wage value of over 18 million dollars—a loss partly paid by employers in the form of workmen's compensation and partly absorbed by the injured workers in the form of reduced income during the disability period. This, however, represents only a portion of the total cost which will accrue from these injuries.

Industrial injury-frequency rates for selected manufacturing industries, first quarter, 1948, with preliminary annual rates for 1947¹

Industry ²	First quarter, 1948					1947: Annual frequency rate (preliminary)
	Number of establish- ments ³	Frequency rate ⁴ for—				
		January	February	March	First quarter	
Apparel:						
Clothing, men's and boys'.....	360	7.5	7.3	9.5	8.1	6.7
Clothing, women's and children's.....	296	3.8	4.6	8.1	5.6	4.7
Apparel and accessories, not elsewhere classified.....	34	(⁵)	(⁵)	(⁵)	7.1	6.9
Trimmings and fabricated textile products, not elsewhere classified.....	43	10.7	16.9	15.4	14.3	14.7
Chemicals:						
Compressed and liquefied gases.....	38	4.4	8.7	5.7	6.2	6.9
Drugs, toiletries, and insecticides.....	67	12.6	7.4	9.2	9.7	12.2
Explosives.....	42	2.7	2.6	4.7	3.3	5.2
Industrial chemicals.....	171	9.7	9.1	10.1	9.7	10.7
Paints, varnishes, and colors.....	61	12.2	11.9	12.7	12.3	11.6
Plastic materials, except rubber.....	27	4.6	5.3	7.2	5.7	6.2
Soap and glycerin.....	45	7.1	6.7	5.6	6.5	6.6
Synthetic rubber.....	19	.0	.0	2.0	.7	1.8
Synthetic textile fibers.....	18	3.2	3.6	3.7	3.5	3.2
Chemical products, not elsewhere classified.....	52	14.6	11.6	10.9	12.3	13.5
Electrical equipment:						
Automotive electrical equipment.....	21	11.3	21.3	20.5	17.6	18.1
Batteries.....	26	23.5	30.9	23.8	26.0	24.0
Communication and signaling equipment, except radio.....	22	5.4	3.6	4.2	4.4	4.9
Electrical appliances.....	33	15.1	11.7	14.5	13.8	14.5
Electrical equipment for industrial use.....	262	8.2	8.7	7.9	8.3	8.5
Electric lamps (bulbs).....	16	3.8	2.7	3.9	3.5	2.8
Insulated wire and cable.....	28	18.2	13.5	14.7	15.5	13.3
Radios and phonographs.....	106	5.1	5.6	5.9	5.5	5.8
Electrical equipment, not elsewhere classified.....	12	(⁵)	(⁵)	(⁵)	3.7	5.5

See footnotes at end of table.

Industrial injury-frequency rates for selected manufacturing industries, first quarter, 1948, with preliminary annual rates for 1947¹—Continued

Industry ¹	Number of establishments ²	First quarter, 1948				1947: Annual frequency rate (preliminary)
		Frequency rate ⁴ for—				
		January	February	March	First quarter	
Food:						
Baking.....	24	12.5	16.3	12.8	13.9	15.1
Canning and preserving.....	43	10.1	13.9	10.0	11.4	19.1
Confectionery.....	29	16.9	16.3	12.9	15.3	14.1
Dairy products.....	129	23.9	26.2	24.3	24.8	22.1
Distilleries.....	52	7.3	9.7	8.0	8.3	11.1
Flour, feed, and grain-mill products.....	17	13.0	6.5	3.9	7.9	11.1
Slaughtering and meat packing.....	324	22.2	19.9	20.5	21.1	25.1
Food products, not elsewhere classified.....	31	12.4	14.7	17.6	14.9	12.1
Furniture and lumber products:						
Furniture, wood.....	92	26.6	24.3	19.0	23.3	24.1
Mattresses and bedsprings.....	115	21.8	21.9	25.1	22.9	23.1
Wooden containers.....	214	39.6	44.9	38.0	40.6	42.1
Miscellaneous wood products, not elsewhere classified.....	106	25.2	20.4	28.4	24.8	28.1
Iron and steel:						
Bolts, nuts, washers, and rivets.....	40	17.7	20.1	15.3	17.6	19.1
Cold-finished steel.....	36	20.1	21.0	18.9	20.0	22.1
Cutlery and edge tools.....	27	9.5	19.5	20.4	16.1	21.1
Fabricated structural steel.....	200	19.9	24.0	26.5	23.5	24.1
Forgings, iron and steel.....	109	19.0	19.3	18.8	19.0	25.1
Foundries, iron.....	342	36.4	37.4	37.8	37.2	43.1
Foundries, steel.....	108	27.3	28.4	30.1	28.6	31.1
Hardware.....	46	17.2	14.8	12.1	14.7	17.1
Heating equipment, not elsewhere classified.....	76	21.8	19.6	22.3	21.3	28.1
Iron and steel.....	149	6.4	6.6	7.0	6.7	7.1
Metal coating and engraving.....	51	28.0	20.1	25.9	24.8	25.1
Ornamental metal work.....	42	15.5	23.9	32.5	23.8	28.1
Plate fabrication and boiler-shop products.....	116	36.1	35.9	35.2	35.7	34.1
Plumbers' supplies.....	45	16.9	14.9	18.3	16.8	24.1
Screw-machine products.....	96	19.0	17.7	16.7	17.8	18.1
Sheet-metal work.....	59	18.6	20.2	31.8	23.6	20.1
Stamped and pressed metal products, not elsewhere classified.....	222	19.5	20.1	24.2	21.3	20.1
Steam fittings and apparatus.....	53	16.4	17.3	18.0	17.2	18.1
Steel barrels, kegs, drums, and packages.....	22	(⁵)	(⁵)	(⁵)	20.0	19.1
Steel springs.....	14	24.8	24.1	37.7	29.2	23.1
Tin cans and other tinware.....	18	9.4	14.8	13.2	12.4	17.1
Tools, except edge tools.....	57	20.1	25.0	13.8	19.6	22.1
Wire and wire products.....	133	19.1	17.5	25.6	20.8	19.1
Wrought pipes, welded and heavy-riveted.....	16	(⁵)	(⁵)	(⁵)	16.5	27.1
Iron and steel products, not elsewhere classified.....	22	(⁵)	(⁵)	(⁵)	16.2	24.1
Leather:						
Boots and shoes, not rubber.....	248	8.7	8.5	10.8	9.3	10.1
Leather.....	32	25.9	24.3	23.2	24.4	32.1
Lumber:						
Millwork, structural.....	202	33.5	27.4	34.2	31.8	32.1
Sawmills.....	49	63.7	50.4	55.7	56.7	62.1
Sawmills and planing mills combined.....	39	47.8	70.5	63.5	60.3	58.1
Planing mills.....	75	52.1	55.3	47.0	51.3	43.1
Plywood mills.....	42	35.7	47.6	44.2	42.5	36.1
Machinery, except electric:						
Agricultural machinery and tractors.....	81	18.7	19.2	22.8	20.2	20.1
Bearings, ball and roller.....	30	13.3	14.3	13.9	13.8	18.1
Commercial and household machinery.....	124	9.5	9.7	9.7	9.6	11.1
Construction and mining machinery.....	116	23.2	20.0	24.0	22.5	24.1
Elevators, escalators, and conveyors.....	26	17.7	17.5	19.5	18.2	18.1
Engines and turbines.....	47	9.2	15.0	14.4	12.5	14.1
Food-products machinery.....	59	19.8	21.9	22.1	21.3	24.1
General industrial machinery and equipment, not elsewhere classified.....	192	18.1	20.7	21.9	20.3	22.1
General machine shops (jobbing and repair).....	103	23.3	20.2	19.1	21.0	21.1
Mechanical measuring and controlling instruments.....	52	11.3	11.5	10.9	11.2	14.1
Mechanical power transmission equipment, except ball and roller bearings.....	69	14.7	16.1	19.5	16.8	19.1
Metalworking machinery.....	424	12.7	13.4	13.8	13.3	14.1
Pumps and compressors.....	71	18.3	18.2	22.2	19.6	20.1
Special industry machinery, not elsewhere classified.....	114	20.9	25.5	20.8	22.4	22.1
Textile machinery.....	27	10.4	11.8	12.8	11.7	15.1
Nonferrous metals:						
Aluminum and magnesium products.....	23	23.4	33.2	24.3	26.9	28.1
Foundries, nonferrous.....	218	19.7	23.0	24.1	22.3	25.1
Nonferrous basic shapes and forms.....	29	14.7	13.5	11.8	13.3	14.1
Watches, clocks, jewelry, and silverware.....	37	5.3	7.7	8.2	7.1	8.1
Nonferrous metal products, not elsewhere classified.....	86	11.9	16.8	16.3	15.0	15.1
Ordnance:						
Ordnance and accessories.....	16	3.5	4.7	5.9	4.7	5.1
Paper:						
Paper boxes and containers.....	307	18.4	21.6	22.0	20.7	19.1
Paper.....	344	19.9	19.5	17.7	19.1	24.1
Paper products, not elsewhere classified.....	27	20.1	15.5	18.4	18.1	19.1
Printing:						
Book and job printing.....	55	9.4	9.4	8.2	9.0	8.1
Rubber:						
Rubber boots and shoes.....	16	6.0	5.8	5.8	5.9	9.1
Rubber tires and tubes.....	36	9.4	9.0	9.4	9.3	10.1
Rubber products, not elsewhere classified.....	76	15.4	14.6	19.1	16.4	17.1

See footnotes at end of table.

Industrial injury-frequency rates for selected manufacturing industries, first quarter, 1948, with preliminary annual rates for 1947¹—Continued

Industry ¹	First quarter, 1948					1947: Annual frequency rate (preliminary)
	Number of establishments ²	Frequency rate ⁴ for—				
		January	February	March	First quarter	
Stone, clay, and glass:						
Structural clay products.....	34	(⁵)	(⁵)	(⁵)	14.0	24.1
Concrete, gypsum, and plaster products.....	121	(⁵)	(⁵)	(⁵)	38.9	36.1
Glass.....	42	15.5	19.8	15.6	16.9	15.0
Pottery and related products.....	31	23.2	18.4	21.9	21.2	20.0
Stone, clay, and glass products, not elsewhere classified.....	43	15.0	19.2	16.3	16.8	21.1
Textiles:						
Cotton yarn and textiles.....	185	9.0	8.7	9.8	9.2	10.1
Dyeing and finishing textiles.....	54	12.6	14.5	12.8	13.3	14.9
Knit goods.....	73	7.4	6.8	7.9	7.4	8.0
Rayon and other synthetic and silk textiles.....	49	6.7	7.8	8.6	7.7	10.5
Woolen and worsted textiles.....	153	12.0	13.6	13.2	12.9	16.1
Miscellaneous textile goods, not elsewhere classified.....	28	23.6	17.7	23.9	21.8	21.1
Transportation equipment:						
Aircraft.....	19	5.9	4.3	4.6	4.9	4.6
Aircraft parts.....	30	6.6	9.0	6.2	7.3	8.4
Motor vehicles.....	106	9.5	9.6	10.1	9.8	11.5
Motor-vehicle parts.....	105	19.7	21.1	19.9	20.2	20.7
Railroad equipment.....	50	18.5	20.2	19.9	19.6	18.1
Shipbuilding and repairs.....	62	21.9	25.4	27.7	25.0	27.3
Miscellaneous manufacturing:						
Fabricated plastic products.....	30	11.1	8.0	11.7	10.3	11.4
Optical and ophthalmic goods.....	19	2.1	4.5	6.9	4.4	5.2
Photographic apparatus and materials.....	27	6.5	6.0	6.7	6.4	5.1
Professional and scientific instruments and supplies.....	58	5.8	6.8	6.3	6.3	8.2
Miscellaneous manufacturing, not elsewhere classified.....	138	11.4	12.0	11.3	11.6	14.5

¹ The average number of disabling industrial injuries for each million employee-hours worked.

² A few industries have been omitted because the monthly coverage did not amount to 1,000,000 or more employee-hours worked.

³ March.

⁴ Computed from all reports received for each month; not based on identical plants in successive months.

⁵ Not available.

It includes no allowance for the continuing economic losses arising from the many deaths and permanent impairments nor for the hospital, medical, and other costs incidental to the treatment of the injuries.

The estimate of 114,800 disabling injuries is 3,100 below the estimated total for the fourth quarter of 1947, but even more favorable is the 12,200 decrease from the corresponding estimate for the first quarter of 1947.

For 39 of the 116 manufacturing classifications for which comparable data were available injury-frequency rates in the first quarter of 1948 were significantly lower than in the last quarter of 1947, for 32 others they were higher, and for 45 industries they were essentially unchanged. The

most outstanding reduction—70 percent—was in the rate for the synthetic-rubber industry. The plants of this group had a combined average of only 0.7 disabling injuries per million employee-hours worked in the 3-month period, compared with the already low rate of 2.4 in the preceding quarter.

Other industries with low injury rates in the first quarter of 1948 included explosives, 3.3; synthetic textile fibers, 3.5; and electric lamps (bulbs), 3.5. At the other end of the scale, all of the rates above 40 were for industries in the woodworking group: Integrated saw-and-planing mills, 60.3; sawmills, 56.7; planing mills, 51.3; plywood mills, 42.5; and wooden-container manufacturing, 40.6.

Salaries of Office Workers, San Francisco and Oakland, 1948¹

AVERAGE WEEKLY SALARIES in San Francisco, in 21 women's office clerical occupations studied in February 1948, ranged from \$55.02 for hand bookkeepers to \$37.37 for routine file clerks.² Women general stenographers, numerically the most important occupation and in many ways the one most representative of women office workers, averaged \$48.13 for an average workweek of about 39 hours. Accounting clerks and comptometer-type calculating machine operators were closely grouped, with averages slightly less than \$48. Salaries of clerk-typists, averaging \$42.21 were only slightly above those of general typists (\$42.09).

In Oakland also, the highest paid women were hand bookkeepers, averaging \$51.38 a week. Those at the lowest salary level were routine file clerks, who averaged \$36.62. General stenographers averaged \$46.81, accounting clerks \$44.64, calculating machine operators \$44.50, clerk-typists \$41.99, and general typists \$37.69.

Men were represented in 16 of the 21 occupations in San Francisco, and showed salary averages ranging from \$37.85 a week for office boys to \$66.78 for hand bookkeepers. In Oakland, among 10 men's jobs, the same occupations averaged \$39.78 and \$63.93. In each city, general clerks and accounting clerks received almost the same average pay—\$55.74 and \$55.52 in San Francisco and \$53.50 and \$52.72 in Oakland.

Direct comparisons of the over-all occupational averages reveal fairly consistent differentials of from \$1 to \$4 a week in favor of San Francisco women. The intercity differences between men's

¹ Field work for this study and preparation of the report were under immediate direction of John L. Dana, the Bureau's Regional Wage Analyst in San Francisco.

The study was based on reports from 168 establishments in San Francisco and 86 in Oakland. The following industry groups were represented: Manufacturing, wholesale trade, retail trade, finance, insurance and real estate, and transportation (except railroads), communications, and other public utilities. No establishment with fewer than 51 workers of all types was included in the survey. A more detailed bulletin is in preparation and will be available upon request. Similar studies were made in Atlanta, Boston, Buffalo, Chicago, Dallas, Denver, Milwaukee, New York, and Seattle.

² Salary data pertain to full-time workers only and exclude overtime premium pay. Data were obtained from pay-roll records by field representatives of the Bureau. Classification of workers was based on uniform job descriptions prepared by the Bureau.

salaries were not so uniform. Furthermore, considerable variation between the two cities existed in salary levels among the various industries.

Although many factors operate in both cities to develop salary scales following well-established patterns, it is recognized generally that San Francisco draws heavily on Oakland and the Oakland area for office-worker personnel. The problem of attracting these workers across the bay, with attendant increased transportation cost and the added inconvenience in getting to and from work, is probably significant in wage considerations.

Variations in Salaries of Individual Workers

Salary ranges of between \$7 and \$8 around the average included a majority of women in most occupations in both cities. For example, almost 54 percent of the women clerk-typists in San Francisco received salaries falling within the range of \$37.50 to \$45.00 a week (the average was \$42.21). In Oakland, the proportion of these workers within the same range was slightly less (52.3 percent) and the average was lower (\$41.99). Salaries of men workers were not concentrated within the same relatively narrow ranges as indicated for women. However, a spread of \$10 to \$15 around the average generally included a majority of workers in each job. The tendency toward concentration of salaries was more marked for both men and women in Oakland than in San Francisco.

Variations Among Industry Groups

Industry comparisons, based on 18 occupations in San Francisco and 11 in Oakland, for which averages were available for all industry groups, demonstrate the leading positions, in both cities, of the manufacturing and the transportation, communication, and other public utilities groups.³ The highest or next to highest average salaries were in manufacturing in 17 of the San Francisco jobs and 10 of the Oakland jobs, and in transportation, communication, and other public utili-

³ The nature of the study generally precluded use of narrowly defined industry classifications. For instance, the transportation, communication, and other public utilities group included, among others, establishments in the electric light and power, gas, telephone, and local freight and passenger transportation industries. At the other extreme, the retail trade group was limited to department and other general merchandise stores.

ities, in 11 of the San Francisco jobs and 9 of the Oakland jobs. Average salaries in retail trade tended to be at lowest levels in both cities, along with salaries in finance, insurance, and real estate in San Francisco and in wholesale trade in Oakland. San Francisco wholesale trade salaries were on about the same level as those for all industries combined and salaries in finance,

insurance, and real estate in Oakland were slightly lower than the all-industry levels.

For most of the occupations having full industry-group representation, the range of differences between industry group averages was not broad. In both cities, differences between the highest and the lowest industry-group averages were typically from \$6 to \$10.

Average weekly salaries¹ and hourly rates, selected office occupations in San Francisco and Oakland, Calif., February 1948

Occupation and industry	San Francisco						Oakland					
	Men			Women			Men			Women		
	Number of workers	Average weekly salaries	Average hourly rates	Number of workers	Average weekly salaries	Average hourly rates	Number of workers	Average weekly salaries	Average hourly rates	Number of workers	Average weekly salaries	Average hourly rates
Billers (billing machine).....	28	\$53.59	\$1.34	255	\$45.75	\$1.15	8	\$42.00	\$1.05	110	\$43.90	\$1.10
Manufacturing.....				56	47.42	1.21				66	47.04	1.18
Wholesale trade.....				139	45.10	1.13				12	37.98	.95
Finance, insurance, and real estate.....				25	43.82	1.13						
Transportation, communication, and other public utilities.....	19	51.11	1.28	24	45.31	1.13	8	42.00	1.05	29	38.49	.96
Billers (bookkeeping machine).....				145	49.62	1.25				41	39.43	.99
Manufacturing.....				38	56.09	1.45						
Wholesale trade.....				65	46.52	1.16				14	37.15	.93
Retail trade.....				20	48.73	1.22				25	40.46	1.01
Finance, insurance, and real estate.....				22	48.38	1.21						
Bookkeepers, hand.....	170	66.78	1.70	179	55.02	1.40	66	63.93	1.60	56	51.38	1.28
Manufacturing.....	90	69.19	1.77	50	60.78	1.54	58	63.18	1.58	18	53.65	1.34
Wholesale trade.....	25	73.71	1.84	30	56.34	1.42				22	45.66	1.14
Retail trade.....				18	50.80	1.27						
Finance, insurance, and real estate.....	35	55.43	1.46	60	50.71	1.32						
Transportation, communication, and other public utilities.....	19	68.31	1.69	21	55.37	1.40				11	60.35	1.51
Bookkeeping-machine operators, class A.....	25	53.36	1.35	121	51.63	1.34				65	46.41	1.16
Manufacturing.....	6	54.09	1.41	80	52.28	1.37				29	48.60	1.21
Wholesale trade.....				15	51.84	1.30				14	45.19	1.13
Retail trade.....										11	40.34	1.01
Finance, insurance, and real estate.....	9	52.16	1.31	24	49.54	1.26				5	53.63	1.34
Transportation, communication, and other public utilities.....										6	43.73	1.09
Bookkeeping-machine operators, class B.....	157	44.22	1.10	791	44.23	1.12	46	40.23	1.01	165	41.60	1.04
Manufacturing.....				150	48.72	1.23				22	42.48	1.07
Wholesale trade.....	22	58.58	1.47	112	47.64	1.19						
Retail trade.....				12	42.70	1.07						
Finance, insurance, and real estate.....	129	41.77	1.04	488	41.98	1.07	46	40.23	1.01	135	41.36	1.03
Transportation, communication, and other public utilities.....				29	46.46	1.15						
Calculating-machine operators (Comptometer-type).....	24	56.77	1.42	913	47.78	1.21	9	58.81	1.43	174	44.50	1.11
Manufacturing.....				422	49.10	1.26	8	59.00	1.43	67	46.08	1.15
Wholesale trade.....				297	46.79	1.07				15	40.75	1.02
Retail trade.....				73	41.78	1.04				59	40.13	1.00
Finance, insurance, and real estate.....				12	45.46	1.23						
Transportation, communication, and other public utilities.....				109	49.66	1.25				33	50.80	1.27
Calculating-machine operators (other than Comptometer-type).....	8	58.11	1.42	115	43.80	1.11				27	42.70	1.07
Wholesale trade.....				65	43.46	1.09				18	42.96	1.07
Finance, insurance, and real estate.....	7	59.51	1.45	44	44.87	1.15						
Clerks, accounting.....	709	55.52	1.41	987	47.83	1.22	98	52.72	1.32	258	44.64	1.12
Manufacturing.....	256	57.77	1.47	318	50.05	1.28	66	53.29	1.33	110	46.91	1.18
Wholesale trade.....	183	52.08	1.31	217	48.08	1.21	5	46.26	1.16	17	44.14	1.10
Retail trade.....				29	45.07	1.13				73	39.16	.98
Finance, insurance, and real estate.....	128	53.91	1.38	261	44.53	1.16				25	42.08	1.06
Transportation, communication, and other public utilities.....	142	57.37	1.45	172	48.71	1.23	21	51.97	1.30	33	51.37	1.28
Clerks, file, class A.....	9	49.11	1.23	331	45.59	1.15	10	37.98	.95	90	38.38	.96
Manufacturing.....	4	47.20	1.18	116	51.21	1.30				30	39.44	.99
Wholesale trade.....				65	42.42	1.07				12	35.25	.88
Finance, insurance, and real estate.....				112	41.14	1.05				23	34.77	.87
Transportation, communication, and other public utilities.....				36	47.12	1.16						

See footnotes at end of table.

Average weekly salaries ¹ and hourly rates, selected office occupations in San Francisco and Oakland, Calif., February 1948—Continued

Occupation and industry	San Francisco						Oakland					
	Men			Women			Men			Women		
	Number of workers	Average weekly salaries	Average hourly rates	Number of workers	Average weekly salaries	Average hourly rates	Number of workers	Average weekly salaries	Average hourly rates	Number of workers	Average weekly salaries	Average hourly rates
Clerks, file, class B	225	\$44.25	\$1.11	947	\$37.37	\$0.95				95	\$36.62	\$0.92
Manufacturing	16	46.61	1.17	146	43.99	1.14				12	35.86	.91
Wholesale trade				100	37.68	.94				22	33.48	.84
Retail trade				47	35.31	.88				15	35.44	.89
Finance, insurance, and real estate				542	35.40	.91				6	34.13	.87
Transportation, communication, and other public utilities	5	43.50	1.09	112	38.87	.97				40	39.38	.96
Clerks, general	535	55.74	1.40	950	49.47	1.24	204	\$53.50	\$1.34	380	45.02	1.13
Manufacturing	166	64.17	1.61	252	61.67	1.54	34	53.65	1.34	163	47.90	1.20
Wholesale trade	166	52.08	1.30	280	44.47	1.11				32	41.56	1.04
Retail trade				73	40.11	1.00				64	37.79	.94
Finance, insurance, and real estate	175	50.76	1.28	284	45.99	1.18	28	52.77	1.32	71	46.11	1.15
Transportation, communication, and other public utilities	28	58.50	1.45	61	49.48	1.24	28	53.14	1.33	50	45.50	1.14
Clerks, order	514	56.98	1.43	201	49.75	1.26	71	55.78	1.40	113	43.88	1.09
Manufacturing	114	60.06	1.54	90	51.60	1.30	48	54.49	1.37	40	47.32	1.18
Wholesale trade	379	54.86	1.37	74	49.20	1.23	22	59.42	1.49	28	37.61	.94
Retail trade				16	38.52	.96				18	40.49	1.01
Finance, insurance, and real estate	14	81.83	2.02	12	49.20	1.35						
Transportation, communication, and other public utilities										19	48.17	1.20
Clerks, pay roll	98	56.47	1.43	368	50.31	1.27	21	55.19	1.37	178	44.94	1.12
Manufacturing	52	55.27	1.41	164	53.32	1.35	18	55.22	1.37	90	44.60	1.12
Wholesale trade	15	51.57	1.29	74	50.27	1.26				9	46.98	1.17
Retail trade				31	44.49	1.11				35	43.29	1.08
Finance, insurance, and real estate	10	63.29	1.58	34	47.57	1.21						
Transportation, communication, and other public utilities	21	59.71	1.50	65	46.99	1.18				44	46.53	1.16
Clerk-typists	67	46.48	1.16	1,692	42.21	1.07				667	41.99	1.08
Manufacturing	26	47.36	1.18	482	45.58	1.15				422	44.01	1.10
Wholesale trade	10	48.02	1.20	327	42.68	1.07				22	38.01	.95
Retail trade				18	37.53	.94				146	38.07	.95
Finance, insurance, and real estate				566	39.95	1.02				27	38.39	.98
Transportation, communication, and other public utilities	31	45.24	1.13	299	40.80	1.03				50	40.05	1.00
Office boys and girls	391	37.85	.96	343	38.61	.97	82	39.78	1.00	60	37.47	.94
Manufacturing	148	38.00	.96	132	41.52	1.05	56	38.02	.95	15	37.13	.93
Wholesale trade	60	37.27	.94	129	35.17	.88	5	33.14	.83	8	33.08	.83
Retail trade										14	34.43	.86
Finance, insurance, and real estate	106	37.58	.97	20	34.75	.87				8	32.80	.82
Transportation, communication, and other public utilities	75	38.44	.98	59	41.15	1.04	18	48.00	1.20	15	45.57	1.14
Stenographers, general	41	50.80	1.27	2,572	48.13	1.23				536	46.81	1.17
Manufacturing	16	53.14	1.33	904	50.28	1.28				302	47.34	1.18
Wholesale trade	22	49.43	1.24	443	48.51	1.22				65	44.08	1.10
Retail trade				42	47.60	1.19				13	44.36	1.11
Finance, insurance, and real estate				811	46.44	1.20				90	46.00	1.16
Transportation, communication, and other public utilities				372	46.17	1.16				66	48.64	1.22
Switchboard operators				412	47.15	1.19				82	45.51	1.14
Manufacturing				132	52.92	1.33				28	48.83	1.22
Wholesale trade				90	44.71	1.12				6	43.90	1.10
Retail trade				21	39.62	.99				21	41.46	1.04
Finance, insurance, and real estate				112	43.13	1.10				15	43.27	1.08
Transportation, communication, and other public utilities				57	48.34	1.22				12	48.47	1.21
Switchboard-operator-receptionists				323	44.73	1.14				117	43.03	1.08
Manufacturing				104	45.06	1.15				73	43.55	1.09
Wholesale trade				122	45.52	1.14				12	44.17	1.10
Finance, insurance, and real estate				52	44.08	1.16				10	40.57	1.03
Transportation, communication, and other public utilities				41	42.16	1.09				21	41.89	1.05
Transcribing-machine operators, general				236	45.82	1.16				77	42.73	1.08
Manufacturing				96	47.97	1.22				61	42.23	1.06
Wholesale trade				60	42.98	1.07						
Retail trade										13	40.49	1.01
Finance, insurance, and real estate				69	43.46	1.12						
Transportation, communication, and other public utilities				11	57.29	1.43						

See footnotes at end of table.

Average weekly salaries¹ and hourly rates, selected office occupations in San Francisco and Oakland, Calif., February 1948—Continued

Occupation and industry	San Francisco						Oakland					
	Men			Women			Men			Women		
	Num- ber of workers	Average weekly salaries	Average hourly rates	Num- ber of workers	Average weekly salaries	Average hourly rates	Num- ber of workers	Average weekly salaries	Average hourly rates	Num- ber of workers	Average weekly salaries	Average hourly rates
Typists, class A.....	8	\$45.24	\$1.13	348	\$46.60	\$1.19				109	\$41.22	\$1.03
Manufacturing.....				202	48.33	1.24				19	44.76	1.12
Wholesale trade.....				32	45.13	1.13				12	38.55	.96
Finance, insurance, and real estate.....				66	40.22	1.03				68	39.74	.99
Transportation, communication, and other public utilities.....				44	49.25	1.23				10	47.77	1.19
Typists, class B.....				528	42.09	1.07				129	37.69	.95
Manufacturing.....				150	44.59	1.13				6	42.64	1.07
Wholesale trade.....				104	41.70	1.04				22	33.06	.83
Retail trade.....				9	42.93	1.07				24	37.40	.94
Finance, insurance, and real estate.....				224	39.96	1.03				48	36.34	.91
Transportation, communication, and other public utilities.....				41	45.43	1.16				29	42.65	1.07

¹ Excludes overtime premium pay.

² Includes data for industry groups not shown separately.

Related Practices and Supplementary Benefits

In addition to the wage data, information was obtained on closely related practices, many of which provide supplements to basic wages and are undoubtedly taken into consideration by employees in evaluating their economic status. Findings in regard to a number of formalized practices are summarized below on an establishment basis. No attempt has been made to present specific information on informal arrangements affecting office workers, which are known to exist quite extensively. Historically, office workers have been given separate consideration from plant workers, both in methods of determining salaries and in nonwage benefits.

The workweek in San Francisco and Oakland offices was characteristically on a 5-day, 40-hour basis, for both men and women workers. This schedule was in effect in more than two-thirds of the San Francisco, and in almost all of the Oakland offices. Slightly under a quarter of the San Francisco offices had workweek schedules of less than 40 hours, principally in the manufacturing and in the finance, insurance, and real estate groups. A 5½-day weekly schedule was observed by about a tenth of the San Francisco offices, including almost a third of the finance, insurance, and real estate firms and some few manufacturing establishments. A full 6-day workweek was reported by only four firms in each of the cities.

Paid vacations for office workers were provided in all of the 254 establishments studied in San

Francisco and Oakland. In almost seven-eighths of the establishments in both cities, vacations of 2 weeks were stipulated for workers with 1 year of service. Vacation practices were most liberal in the finance, insurance, and real estate group.

Six or more paid holidays were allowed office workers in all except 2 of the 254 establishments. Two firms reported 5 holidays observed during the calendar year. More than half of the San Francisco offices and a little more than a quarter of the Oakland offices paid for 8 or more holidays. In the finance, insurance, and real estate group, the general practice in both cities was to observe 11 holidays.

Limited sick leave with pay under formal provisions was granted in almost a third of the offices in each city. The number of days for which sick pay was granted varied considerably between offices and according to plans in use. In each city, over three-quarters of the establishments having formalized plans allowed leave of 2 weeks or more after 1 year of service; and 25 establishments reported leave of 1 month or more after 5 years.

The most liberal industry group in this respect was transportation, communication, and other public utilities, in which more than a third of the offices studied in each city reported sick leave in accordance with formal plans.

Lack of a formalized policy concerning sick leave, however, does not necessarily mean loss of pay to employees because of illness since many establishments have informal arrangements for allowing paid sick leave.

Industrial Chemical Industry: Earnings in January 1948¹

SKILLED MAINTENANCE WORKERS generally received the highest straight-time hourly earnings in January 1948, according to a Bureau of Labor Statistics study of key jobs in industrial chemical establishments. Hourly earnings of maintenance electricians and pipe fitters in the 11 centers studied ranged from \$1.85 and \$1.82, respectively (in Charleston, W. Va.) to \$1.40 and \$1.38 (in Baltimore). In a majority of the cities, the earnings of these workers exceeded \$1.60 an hour. In 5 cities, class A chemical operators also averaged \$1.60 or more an hour, although in Baltimore, New York, and Cincinnati, the average was \$1.40 or less. In most cities, average earnings of class B chemical operators ranged from 6 to 13 percent below the amounts paid to class A operators.² Although earnings of 95 cents and \$1 were reported for janitors in New York City and Baltimore, in 4 cities such workers averaged from \$1.30 to \$1.33 an hour.

The industry employs relatively few women plant workers. In 3 of the 6 cities for which data were available, women laboratory assistants averaged

¹ Prepared by Donald L. Helm of the Bureau's Division of Wage Analysis. Field work for the study was under the direction of the Bureau's regional wage analysts. Greater detail on wages and wage practices for each area presented is available on request.

² In Los Angeles, class B chemical operators averaged 11 cents more an hour than class A operators. This may be attributed to variation in products manufactured in plants in this area. Some establishments employed only class B chemical operators and did not require the services of class A operators; in other plants a reverse situation obtained. In plants in the area in which both classes of workers were employed, class A operators received the higher earnings.

about \$1 an hour—a third less than the amount earned by such workers in San Francisco.

Wage levels in general were highest in Charleston, W. Va., Detroit, and Buffalo (in which cities some of the largest plants are located) and in the historically high-wage Pacific region. Reflecting the trend of general wage increases in American industry, earnings of selected chemical occupations in the cities studied averaged between a fourth and fifth more in January 1948 than in January 1946, when a similar study was made. The majority of the increases fell within a range of 15 to 30 percent. Percents of increase tended to be proportionately less marked for workers on skilled operations than for those in the less skilled categories.

Although industrial chemical plants differ widely in size of establishment and type of product, they typically employ large numbers of maintenance workers. These comprise about a tenth of the labor force in plants employing fewer than 50 workers and about a fourth in establishments with more than 500 workers. These relatively large proportions can be ascribed to the high ratio of equipment to number of workers in many of the industry's operations which involve physical and/or chemical changes under highly critical pressure, vacuum, or temperature limits. Because the nature of the work does not readily lend itself to incentive methods of payment, nearly all workers in the industry are paid on a time basis.

Late-shift operation was common in all but the smallest establishments. Of the more than 50,000 plant workers in the industry in the selected cities, it is estimated that at least a fifth received extra

Straight-time average hourly earnings¹ for selected occupations in industrial chemical establishments in 11 cities, January 1948

Occupation	Balti- more	Buffalo	Charles- ton, W. Va.	Cincin- nati	Detroit	Los Angeles	New York	Newark	Phila- delphia	San Francisco	Seattle- Tacoma
Men											
Chemical operators, class A.....	\$1.32	\$1.54	\$1.81	\$1.40	\$1.61	\$1.60	\$1.39	\$1.49	\$1.54	\$1.65	\$1.61
Chemical operators, class B.....	1.14	1.45	1.58	1.29	1.52	1.71	1.26	1.30	1.37	1.57	(2)
Chemical operators' helpers.....	1.03	1.38	1.46	1.08	1.43	1.39	1.06	1.30	1.17	1.51	1.49
Drum fillers.....	(2)	1.40	(2)	1.24	(2)	1.42	(2)	1.23	1.18	1.33	1.44
Electricians, maintenance.....	1.40	1.72	1.85	1.46	1.68	1.69	1.64	1.63	1.61	1.78	1.54
Filling-machine tenders.....	1.63	(2)	(2)	(2)	(2)	(2)	(2)	1.25	1.12	1.38	(2)
Janitors.....	1.00	1.30	1.23	1.18	1.33	1.31	.95	1.17	1.06	1.31	(2)
Laboratory assistants.....	1.00	1.34	(2)	1.12	(2)	1.53	1.22	1.17	1.22	1.40	(2)
Mixers, class A.....	(2)	(2)	(2)	(2)	(2)	(2)	1.55	1.45	1.48	1.37	(2)
Mixers, class B.....	(2)	(2)	(2)	(2)	(2)	(2)	1.09	1.37	1.16	(2)	(2)
Pipefitters.....	1.38	1.71	1.82	1.41	1.67	1.71	1.48	1.71	1.53	1.64	1.57
Pumpmen.....	1.13	1.50	1.68	1.43	(2)	1.44	(2)	1.41	1.26	1.62	(2)
Truckers, hand.....	1.01	1.36	(2)	(2)	(2)	1.31	1.11	1.25	(2)	1.34	(2)
Women											
Laboratory assistants.....	1.02	.98	(2)	1.02	(2)	(2)	1.05	(2)	1.27	1.49	(2)

¹ Excludes premium pay for overtime and night work.

² Insufficient data to justify presentation of an average.

amount earnings in the form of premium pay for second and third shifts. Such payments most typically ranged from 5 to 10 cents an hour above the first-shift rate. Although multishift operation was widespread, 7 out of 10 establishments had a full-time normal workweek of 40 hours.

Paid vacations of at least 1 week were granted by nearly all plants studied to both plant and office workers after 1 year of service; a paid vacation of 2 weeks was granted to plant workers by 1 out of 5 plants and to office workers by 7 out of 10. Provisions for increases in vacation periods for plant workers, according to length of service, were found in a majority of establishments. Service requirements for more than 1 week of vacation varied among the plants studied: 2-week vacations were granted by 3 out of 7 establishments after plant workers had been employed for 2 years, and by 2 out of 3 establishments after 3 years; at least 5 out of 6 plants reported 2 or more weeks of vacation for workers with 5 years of service. In addition, 5 out of 6 establishments granted plant workers paid holidays, typically 6 in a year.

Printing Trades:

Union Scales, January 2, 1948¹

BASIC RATES OF UNION CRAFTSMEN in newspaper and book and job printing establishments averaged \$1.98 an hour on January 2, 1948.² Such workers ranked among the highest paid wage earners in American industry. The newspaper

¹ Prepared by Hilda W. Callaway and James P. Corkery of the Bureau's Wage Analysis Division. Additional data will be presented in a forthcoming bulletin.

² According to the Bureau's annual survey of union scales in the printing trades, covering 71,008 workers engaged in book and job printing and 34,631 workers in newspaper printing, in 75 cities ranging in population from 40,000 to over 1,000,000. Normally conducted in midyear, the survey was postponed from July 1, 1947, to January 2, 1948. Because of strike situations prevailing in January, the coverage for typographical workers was considerably reduced from coverage of previous years.

The scale data were obtained partially from local union officials through mail questionnaire (instead of personal interviews, the method formerly used by the Bureau). Information was also obtained from central trade association and union sources and from union publications.

Union scales are defined as the minimum wage rates and maximum schedule of straight-time weekly hours which are agreed upon through collective bargaining between employers or their trade associations and the trade-unions. Rates in excess of the agreed minima, which may be paid to some workers because of seniority, special skills, or for other reasons, were not included in the study.

workers have the most favorable wage position and historically have had a distinct wage advantage over the craftsmen in book and job (commercial) shops. On January 2, the average pay scale for the latter was \$1.87, in contrast to \$2.12 for day work and \$2.32 for night work, on newspapers. For a number of the crafts in each industry segment, the lowest scale was \$1.50 an hour. However, a third of the bindery women and a few press feeders in the book and job shops, together with a negligible number of mailers among the newspaper trades, had hourly rates below \$1.

The relatively high level of pay scales for union printing workers reflects substantial gains registered after VJ-day. From June 1939 to January 1948, rates of newspaper workers advanced 72 percent, those of book and job workers 70 percent. The greater part of the change for each worker group occurred after the end of the war. The increase over this period of more than 8 years closely approximates the rise of 71 percent in living costs as measured by the Bureau's consumers' price index. In a number of the collective-bargaining agreements, this index is used as the yardstick for wage adjustments under automatically operating escalator clauses.

TABLE 1.—Indexes¹ of union wage scales in the printing trades, 1939-48

[June 1, 1939=100]

Date	Minimum hourly wage rates			Maximum weekly hours		
	All printing	Book and job	Newspaper	All printing	Book and job	Newspaper
1939: June 1.....	100.0	100.0	100.0	100.0	100.0	100.0
1940: June 1.....	101.4	100.9	102.2	99.8	99.8	99.7
1941: June 1.....	102.6	102.0	103.6	99.8	99.8	99.3
1942: July 1.....	107.0	106.4	108.1	99.5	99.8	99.2
1943: July 1.....	110.4	109.3	112.6	99.8	100.1	99.2
1944: July 1.....	113.1	112.2	115.1	99.8	100.1	99.2
1945: July 1.....	114.6	113.7	116.7	99.8	100.1	99.2
1946: July 1.....	134.2	133.7	135.5	97.3	96.6	98.8
1948: January 2.....	170.2	169.8	171.5	95.4	94.3	97.8

¹ The index numbers are based on comparable quotations for identical occupational classifications in consecutive years; the individual quotations are weighted by the number of union members working at each scale quotation.

The upward trend of union scales has been accompanied by a steady reduction in straight-time weekly hours. Since July 1946, negotiations have resulted in substantial reductions in standard work schedules, particularly in book and job shops. Thirty-seven percent of the book and job workers and 24 percent of the newspaper workers were on

shorter schedules in January 1948 than in July 1946. In June 1939, nearly nine-tenths of the book and job workers were on a 40-hour week. By January 1948, only a fourth of these employees had a 40-hour schedule; over a third were on a 37½-hour, and the same proportion on a 36¼-hour, schedule. Newspaper workers also obtained significant reductions in hours, but in 1948, as in 1939, the 37½-hour schedule was most common. Thirty-seven percent of the union members in 1948, in contrast to 18 percent in 1939, had a shorter workweek than 37½ hours. In occasional instances, the number of straight-time hours was decreased although the same basic weekly scale was maintained.

Individual Trades

Inasmuch as union agreements in the printing trades are typically renegotiated on an annual basis, most of the workers received 2 pay boosts since the Bureau's previous study which related to July 1, 1946. Few workers were employed on January 2, 1948, under the contract scales of July 1, 1946. During this 18-month period, the average rate increase was 27 percent in both branches of the industry. In book and job shops, the gains ranged from 21 percent for photoengravers to 31 percent for bindery women and platen pressmen. Among the newspaper printing trades, photoengravers similarly received the lowest percent increase (18 percent); the typographical workers registered the largest advance (28 percent).

In both industry segments, there has been a consistent relationship of wage rates among the individual crafts. Photoengravers typically have been the highest-paid craft; job bindery women and newspaper mailers, the lowest. Differences in wage levels of course reflect variations in skill and training. For example, a photoengraver usually serves a 5-year apprenticeship before attaining journeyman status; for bindery women, 2 years of apprentice training is usually required.

Book and Job. Among the 11 occupational classifications studied, rates ranged from 60 cents an hour for platen press feeders in Little Rock to \$2.83 for photoengravers on gravure work in New York City. In each trade there was a broad spread in pay scales throughout the Nation—

TABLE 2.—Amount of increase in union printing trades wage rates, by city and industry branch, July 1, 1946, to January 2, 1948

City	Amount of increase, July 1, 1946, to January 2, 1948					
	All printing trades		Book and job		Newspaper	
	Per-cent	Cents per hour	Per-cent	Cents per hour	Per-cent	Cents per hour
All cities.....	26.8	41.9	27.0	39.7	26.6	46.6
Atlanta, Ga.....	36.4	45.1	36.9	42.9	35.4	50.9
Baltimore, Md.....	24.8	35.5	19.1	24.5	30.2	48.9
Binghamton, N. Y.....	21.6	28.3	18.5	20.9	23.3	33.3
Birmingham, Ala.....	32.9	43.2	37.7	45.1	27.8	40.7
Boston, Mass.....	28.1	42.0	28.3	36.4	27.8	51.1
Buffalo, N. Y.....	33.1	48.4	33.8	45.4	32.3	52.9
Butte, Mont.....	36.7	45.4	35.9	38.2	37.5	55.8
Charleston, W. Va.....	29.7	41.7	31.3	43.3	24.6	36.0
Charlotte, N. C.....	43.5	55.8	51.2	51.4	42.3	56.8
Chicago, Ill. ¹	27.3	46.2	28.5	47.4	23.9	42.5
Cincinnati, Ohio.....	27.6	38.3	30.6	39.0	21.4	36.2
Cleveland, Ohio.....	29.4	46.1	30.3	42.7	28.1	53.2
Columbus, Ohio.....	30.0	46.0	29.3	42.0	31.1	54.2
Dallas, Tex.....	41.7	62.1	42.4	59.3	41.1	65.2
Dayton, Ohio.....	26.9	39.0	24.1	34.2	40.3	64.2
Denver, Colo.....	27.0	38.6	19.9	26.2	35.7	57.3
Des Moines, Iowa.....	30.7	41.8	31.4	39.8	29.3	46.5
Detroit, Mich.....	22.0	36.1	19.5	29.4	26.0	49.7
Duluth, Minn.....	29.4	38.1	30.1	30.6	29.3	40.9
El Paso, Tex.....	32.6	49.0	35.3	48.0	32.5	49.0
Erie, Pa.....	32.3	47.3	34.3	45.7	31.6	47.8
Grand Rapids, Mich.....	36.4	52.8	48.6	63.1	29.2	45.5
Houston, Tex.....	45.4	67.4	49.8	71.0	42.5	65.0
Indianapolis, Ind.....	29.1	44.2	35.2	48.4	20.3	36.3
Jacksonville, Fla.....	32.1	53.0	13.4	18.2	35.4	60.7
Kansas City, Mo.....	37.5	49.7	40.9	50.7	30.7	47.1
Little Rock, Ark.....	23.6	28.3	19.8	21.2	27.4	37.4
Los Angeles, Calif.....	26.9	42.9	29.2	44.7	23.5	39.9
Louisville, Ky.....	28.7	40.1	25.5	33.1	32.8	51.0
Madison, Wis.....	38.1	55.6	37.6	54.3	38.3	56.2
Manchester, N. H.....	36.5	47.9	34.3	38.5	37.3	51.7
Memphis, Tenn.....	34.3	44.6	31.7	33.6	35.9	54.9
Milwaukee, Wis.....	30.5	42.6	36.9	47.4	15.3	26.9
Minneapolis, Minn.....	26.7	37.2	24.3	30.8	31.6	55.7
Mobile, Ala.....	27.0	39.8	40.0	52.2	24.8	37.4
Nashville, Tenn.....	45.3	50.2	39.7	38.5	52.3	70.4
Newark, N. J.....	29.1	45.5	32.4	46.7	25.5	43.9
New Haven, Conn.....	38.0	47.3	38.0	44.9	37.9	51.8
New Orleans, La.....	29.2	37.5	25.7	32.1	35.4	47.7
New York, N. Y.....	21.3	37.3	21.4	35.3	21.0	42.9
Norfolk, Va.....	36.9	52.1	25.0	35.0	39.0	55.0
Oklahoma City, Okla.....	21.1	30.3	16.5	21.5	22.8	34.1
Omaha, Nebr.....	21.9	32.3	14.6	18.9	25.1	39.6
Peoria, Ill.....	39.0	55.4	41.3	54.8	37.3	56.0
Philadelphia, Pa.....	23.6	35.1	19.6	28.7	32.4	49.2
Phoenix, Ariz.....	39.2	55.8	36.7	50.1	40.8	59.6
Pittsburgh, Pa.....	25.0	38.5	28.3	39.3	22.3	37.7
Portland, Maine.....	21.4	27.2	11.9	11.8	22.4	29.4
Portland, Oreg.....	31.4	49.7	28.9	42.2	33.6	57.6
Providence, R. I.....	33.6	55.5	35.9	46.4	33.3	57.1
Reading, Pa.....	27.2	38.2	33.7	42.8	22.0	33.6
Richmond, Va.....	23.2	26.9	13.4	13.3	34.2	48.5
Rochester, N. Y.....	26.3	36.4	26.2	34.1	26.7	42.2
Rock Island (Ill.) district ²	29.8	41.7	26.7	34.1	31.9	47.7
St. Louis, Mo.....	35.8	52.4	38.9	50.2	30.8	57.4
St. Paul, Minn.....	28.8	34.1	28.7	31.4	29.6	51.6
Salt Lake City, Utah.....	29.2	43.4	14.3	21.4	33.3	49.4
San Antonio, Tex.....	38.7	51.0	41.2	42.9	37.9	55.1
San Francisco, Calif.....	36.2	57.5	46.5	68.2	16.0	31.7
Scranton, Pa.....	28.6	34.9	32.5	34.9	21.5	35.1
Seattle, Wash.....	17.6	31.2	16.4	28.2	20.0	37.1
South Bend, Ind.....	35.7	49.9	35.8	49.2	35.4	51.5
Spokane, Wash.....	24.0	36.3	24.8	33.7	23.6	38.1
Springfield, Mass.....	31.7	46.5	35.2	50.5	15.3	25.2
Tampa, Fla.....	36.4	52.1	34.9	44.0	36.8	54.5
Toledo, Ohio.....	33.4	50.4	32.8	44.0	33.9	58.0
Washington, D. C.....	29.9	43.8	30.9	38.3	29.0	51.7
Wichita, Kans.....	43.9	52.4	42.2	47.4	45.1	56.6
Worcester, Mass.....	30.6	44.7	40.1	50.0	29.1	43.6
York, Pa.....	44.1	52.3	35.1	42.9	53.2	63.9
Youngstown, Ohio.....	33.0	48.4	36.4	49.5	31.2	47.7

¹ Exclusive of typographical trades.

² Includes Rock Island and Moline, Ill., and Davenport, Iowa.

ades wage
January

1, 1946, to

Newspaper

Per-
cent

66.6

5.4

0.2

3.3

7.8

7.8

2.3

7.5

4.6

2.3

3.9

4

1.1

1

1

3

7

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7

...ing from 70 cents to over \$1—but there were
marked points of concentration. Three-fifths of
the rates for bindery women fell within the 20-cent
interval from 90 cents to \$1.10, while half of the
rates for bindery men were between \$1.80 and \$2.
These two occupations, together with mailers
(\$1.85), press assistants and feeders (averaging
\$1.70) and platen pressmen (\$1.90), were the only
book and job trades in which averages were less
than \$2.

As previously mentioned, photoengravers had
the highest average wage rate—\$2.36 an hour;
stereotypers were second with \$2.27. The aver-
age for hand compositors was \$2.07; but only about
10 percent of the normal survey union membership
was represented in this average, and some of those
included have always had relatively high scales.
Cylinder pressmen averaged \$2.12, with nearly a
fourth averaging between \$2.20 and \$2.30 an hour.

Newspaper. Among the 8 trades studied, the
highest rate reported was \$2.95 an hour, the
minimum scale for web pressmen-in-charge and for
inside and color pressmen, in Cleveland; the
lowest was 73.7 cents an hour, the scale for bench-
work mailers in Portland, Maine. Average day
rates ranged from \$1.77 for mailers to \$2.40 for
photoengravers; on night work, their respective
scales were \$1.97 and \$2.60.

Premium rates for night-shift work averaged 17
cents an hour in excess of day rates for all trades.
The average night-shift differential for pressmen-
in-charge and stereotypers was about 25 cents an
hour. For day work, journeymen pressmen aver-
aged \$2.07, pressmen-in-charge, \$2.23. Hand
compositors (exclusive of Chicago printers and
some in other areas) averaged \$2.21 for day work,
stereotypers, \$2.04.

Inter-city Differences

The levels of average hourly rates and standard
working hours of printing-trades workers in indi-
vidual cities have a direct relationship to size of
city. Rates are typically higher in large metro-
politan centers. The average wage differentials
existing in January 1948 between cities, classified
according to population group, are shown in the
accompanying tabulation. These figures also
indicate the favorable wage position of the news-

paper printing trades, which is somewhat obscured
when only the combined average for 75 cities is
considered.

Cities with population of—	Average hourly rate	
	Book and job printing	Newspaper printing
1,000,000 and over-----	\$1. 99	\$2. 31
500,000 to 1,000,000-----	1. 79	2. 26
250,000 to 500,000-----	1. 70	2. 16
100,000 to 250,000-----	1. 64	1. 99
40,000 to 100,000-----	1. 59	1. 87

In the newspaper branch, New York, with an
average of \$2.47, was the city ranking highest in
wages; Portland (Maine), with wages averaging
\$1.61, ranked lowest among the 75 cities surveyed.
In the book and job branch, the average differ-
ential between the lowest- and highest-rate cities
was \$1.03: Portland (Maine) again had the lowest
average, and Chicago, with an average of \$2.14,³
had the highest. New York ranked second, with
an average of \$2. A number of the New York
printers compose foreign text, e. g., Hebrew and
Italian, which work commands a substantially
higher scale than composition of English text.

Post-Survey Rate Changes

Many additional wage increases have been
negotiated in the printing crafts since January 2,
1948, the date of the Bureau's current study.
For example, typographical workers in commer-
cial printing plants received increases varying
from 43 cents an hour in Seattle and 40 cents in
Portland, Oreg., to 26 cents in New York and
New Haven, and 10 cents in Birmingham and
Detroit. The most recent settlement in Chicago,
between the International Typographical Union
and the Franklin Association representing 48
shops, resulted in a weekly increase of \$11.89 in
the basic scale for 36¼ hours. About 1,800 union
printers who had not been working since March
2 returned to work June 28 under the terms of
this settlement.

Recent reports covering typographical workers
in newspaper printing indicate increases amount-
ing to 38 cents an hour in Seattle, 28 cents in Los
Angeles and San Francisco, and smaller increases—
ranging from 11 to 24 cents—in several other
cities.

³ Exclusive of typographical workers.

Advisory Council Report on Disability Insurance

EXTENSION OF THE social-insurance system to afford protection against income loss from permanent and total disability was recommended by the Advisory Council on Social Security in its report to the Senate Committee on Finance.¹ Present methods of protection against such income loss, the Council stated, are inadequate. The cost of this type of protection through private life-insurance companies is usually prohibitive; workmen's compensation affords protection against work-connected disabilities, but less than 5 percent of all permanent and total disability cases are of work-connected origin; and special programs provide disability payments only for limited groups such as veterans, railroad employees, and some government employees.

The proposals contained in the Council's report are designed to provide benefits for permanently and totally disabled workers through the extension of the present system of old-age and survivors' insurance to cover the risk of disability. Two Council members, however, opposed the inclusion of this risk under social insurance; they favored provision of disability protection through the addition of a new category to the present State-Federal assistance program.

Eligibility and Benefits

To qualify for benefits under the proposed plan, a person would have to be permanently and totally disabled. Such a disability is defined as one which is medically demonstrable by objective tests, which prevents the worker from performing any substantially gainful activity, and which is likely to be of long-continued and indefinite duration.

Strict eligibility requirements should be adopted to test both the recency and the long duration of an individual's participation in the labor market, to assure that disability benefits would be available only to workers who have suffered income loss by

reason of disability. The coverage required should be (a) a minimum of 40 quarters, (b) 1 quarter every 2 quarters elapsing after 1948 (or after attainment of age 21 if that was later) and prior to the first quarter of total disability, (c) 6 quarters within the 12 quarters preceding disability, and (d) 2 quarters within the 4 quarters preceding disability. A strict long-term test of attachment to the labor force is recommended as evidence that the disabled worker has contributed substantially to his own support over a long period of time.

A waiting period of 6 months should elapse before a qualified person is eligible for benefit. The first benefit should be paid for the seventh month of disability. Such a waiting period, it is claimed, would be a safeguard against malingerers who might attempt to obtain benefits.

The same benefit formula recommended by the Council for old-age and survivors insurance is proposed for the disability-insurance program. The Council does not recommend, however, the provision of benefits for dependents of a disabled worker. Although it is recognized that the burden of disability in many respects is even greater than the burdens created by old age or death, the Council deems it desirable to restrict disability payments to the primary insurance benefit payable to the worker himself.

Benefit payable would amount, on the average, to about 30 percent of the worker's average monthly wage; it would in no case exceed half the average monthly wage. Disability benefits would range from \$25 (or half an average monthly wage of \$50) to \$78.75 (or 22.5 percent of a \$350 average monthly wage).

Claims should be disallowed if the claimant refuses to submit to medical examination, and benefits should be terminated if the beneficiary refuses to submit to re-examination. Periodic re-examination should be provided for in order to terminate benefit payments promptly when the disablement ceased. If the disabled person refuses without reasonable cause to accept rehabilitation services, benefits should be withheld.

When a disabled worker is eligible for benefits under both the disability program recommended and another Federal disability program (other than a Federal workmen's compensation system), he should receive only the larger amount.

¹ Permanent and Total Disability Insurance: A Report to the Senate Committee on Finance from the Advisory Council on Social Security (80th Cong., 2d sess., Senate Doc. No. 162, Washington, 1948). The Advisory Council was appointed by the Committee on Finance on September 17, 1947, in accordance with Senate Resolution 141.

² For Council's report and recommendations on old-age and survivors' insurance, see Monthly Labor Review, June 1948 (p. 641).

Rehabilitation services, when they will assist beneficiary to return to gainful work earlier than otherwise, should be furnished, through existing facilities. Benefits should be terminated upon successful completion of the rehabilitation.

Administration

Permanent and total disability insurance and old-age and survivors insurance should be administered as a single system, it is recommended, as the same wage information will be necessary under each to determine insured status and the amounts of benefit payments. Furthermore, considerations of administrative efficiency and economy make the integration logical. Determination of benefit rights of disabled workers for purposes of future old-age and survivors insurance payments would also be facilitated through integration. The Council recommended that, at the direction of Congress, a study should be made to develop cooperative administrative procedures, to draft a plan for equitably financing disability benefits, and to make such other recommendations as are necessary for effective coordination of disability payments under the several Federal programs. Further, private as well as State and local retirement systems providing disability protection would have to be modified to avoid unnecessarily high total payments if such benefits were also payable under the social-insurance disability program.

The level premium cost,² of the disability benefits proposed, it is estimated, would be from about one-tenth of 1 percent to one-fourth of 1 percent of pay roll. This would include not only the actual cost of disability benefits to disabled persons under age 65 but also the additional cost for old-age and survivor benefits resulting from freezing the disabled individual's insured status and average wage.

According to the two dissenting members of the Council, total disability should be covered by State assistance programs aided by Federal grants-in-aid, and should not be included in a Federal contributory social-security program. Under State assistance programs, disability cases could receive case-work services, medical treatment, and rehabilitation according to individual

needs. Furthermore, the dissenting members held that State systems which are presently handling disability cases with but little Federal aid would be greatly improved by a properly devised total-disability-assistance program involving Federal grants-in-aid.

International Labor Confederations: II. The WFTU¹

POLICY ISSUES precipitated by the controversy over the position of the World Federation of Trade Unions on the European Recovery Program aroused unusual interest in the meetings of the executive bureau and the executive committee² in Rome, May 5-10, 1948. Following publication in the WFTU Information Bulletin of statements opposing the ERP and criticizing certain western national trade-union organizations (centers) for supporting it, members from the United States, Great Britain, and other countries objected to the political partisanship of the WFTU general secretary. Thus, the crucial question in the minds

¹ Prepared in the Bureau's Office of Foreign Labor Conditions.

This is the second in the series of articles on international labor confederations. The first on the CIT (Inter-American Confederation of Workers) and CTAL (Latin-American Confederation of Labor), appeared in the May 1948 Monthly Labor Review.

² The names of the persons attending the executive committee meeting are listed below. The names of those also attending the executive bureau meeting are marked with an asterisk, and of alternates with two asterisks.

*Arthur Deakin, WFTU president (Great Britain), *Louis Sallant, WFTU general secretary (France).

Africa—B. Goodwin (Mine Workers Union of N. Rhodesia); Australia and New Zealand—A. E. Monk (Australian Council of Trade Unions); Central Europe—C. Witaszewski (Central Committee of Polish Trade Unions); China—*Ningli Liu (Chinese Assn. of Labor); France—*A. LeLeap, B. Frachon, **P. LeBrun (Gen. Confed. of Labor); Great Britain—V. Tewson, **T. O'Brien (Trades Union Congress); India and Ceylon—Vikraman Singhe (All India Trade Union Congress); Latin America—*K. Hill (Latin American Confederation of Labor); Scandinavia—E. Jensen (Danish Confederation of Labor); Southeastern Europe—D. Salaj (Central Council of Trade Unions of Yugoslavia), **G. Apostol (General Confederation of Labor of Rumania); Southern Europe—*G. DiVittorio, **G. Bonazzi (Italian General Confederation of Labor); United States and Canada—*J. Carey, **H. Read, M. Ross (Congress of Industrial Organizations), P. Conroy (Canadian Congress of Labor); U. S. S. R.—*V. Kuznetsov, N. V. Popova, E. J. Siderenko, **S. Rostovsky (All-Union Central Council of Trade Unions of the U. S. S. R.); Western Europe—*E. Kupers (Netherlands Trade Union Federation); WFTU Staff—M. Faline (U. S. S. R.), W. Schevenels (Belgium).

Observers: Czechoslovakia—M. Jeeny (Central Council of Czechoslovakian Trade Unions); Germany—R. Chwalek (Greater Berlin), B. Goering (Soviet Zone); ILO—J. Schuil.

The executive bureau met from April 30 to May 5, and the executive committee, from May 6 to 10.

² The level premium contribution rate is the rate which would support the system indefinitely if collected from the beginning.

of western trade-unionists preceding the Rome meetings was whether methods could be agreed upon by western and eastern national trade-union centers which would prevent future domination of WFTU policy by a single national center or by a communist-dominated bloc, and keep the activities of the organization within areas of agreement. The Rome meetings attempted to resolve this problem by reducing the power of the general secretary and by making his decisions subject to concurrence of the assistant general secretaries representing members from the United States, Great Britain and the Soviet Union. This decision significantly altered the character of the WFTU organization.

The Organization of the WFTU

The constitution of the World Federation of Trade Unions provides for a number of operating bodies: World Trade Union Congress, general council, executive committee, executive bureau, and secretariat.

The World Trade Union Congress consists of delegates of national trade-union centers affiliated with the Federation.³ No data are available on current membership of the various affiliated national centers. At the time the WFTU was organized, its membership was reported as 67 million, of which 30 million members were reported from the U. S. S. R. and the countries under its political influence.⁴ The first meeting since the constitutional congress in September-October 1945 was scheduled for December 1948 at the meeting of the executive committee in Rome.

The general council of the WFTU is a somewhat smaller body than the Congress, with representation on a similar basis. It is responsible for governing the organization between meetings of the Congress. The WFTU constitution provides that the general council shall meet at least annually, but since the constitutional congress of 1945 it has met only once, at Prague, in June 1947.

Between the meetings of the general council, the executive committee administers the affairs of the WFTU. It is elected by a general vote of the

Congress. According to the constitution it is to consist of 26 members, including the general secretary, and it should meet at least twice a year. It had held two meetings between the organization of the WFTU in October 1945 and the Rome meeting in May 1948.

The executive bureau is the governing body of the WFTU between meetings of the executive committee. The bureau is elected by the executive committee and consists of nine members, including the general secretary. Prior to its Rome meetings, it had met five times.

The general secretary, under the constitution, is elected by the general council and "may be removed only upon action of the general council." He is the principal administrative officer of the WFTU, in general charge of the staff and responsible to the executive committee. Since the organization of the WFTU, this post has been held by Louis Saillant, secretary of the French General Confederation of Labor. The constitution also provided that the executive bureau, subject to confirmation by the executive committee, shall appoint three assistant general secretaries "who shall serve under the general secretary."

Control of WFTU Policy

The controversy over the European Recovery Program arose in November 1947, when the Congress of Industrial Organizations of the United States requested the executive bureau to consider the WFTU position with respect to the program, and the responsibilities of the constituent national centers in implementing WFTU congress declarations on postwar reconstruction. The executive bureau decided not to place these matters on the agenda for discussion or action, but voted by a majority to hear a statement on the CIO position on these subjects, from James B. Carey, CIO secretary-treasurer. The delegates from the U. S. S. R. and Italy, and the general secretary, voted against hearing the CIO statement, and the delegates from China, France, the Netherlands, the United Kingdom, and the United States voted in favor.

Support of the European Recovery Program by national centers affiliated with the WFTU, Mr. Carey maintained, was consistent with resolutions adopted at the World Trade Union Conference

³ For details on the aims, organization, and functions of the WFTU, see *Monthly Labor Review*, January 1946 (pp. 48-52).

⁴ See *Monthly Labor Review*, January 1946 (p. 54). The number of delegates which each national trade-union center is permitted to send to the Congress is determined on a basis which gives the smaller centers more delegates than they would have if the number of delegates were strictly proportionate to their membership.

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held in London in February 1945,⁵ and at the Paris congress of September-October 1945,⁶ where the WFTU was established. He declared that the European Recovery Program was in accordance with the principles for such aid laid down in those resolutions, and that the national centers were therefore committed to supporting the ERP unless they wanted to propose that the WFTU should change its policies. Further, he asked that "the secretariat encourage consultation between the affected national centers and that all interested affiliates be informed through the WFTU of the steps taken to implement the declaration of the WFTU on postwar relief and reconstruction."⁷

Meetings of the executive bureau and of the executive committee, which would have afforded an opportunity to discuss the ERP, were originally scheduled for February 1948, but were postponed until late May, on the basis of the general secretary's report that a majority of the members of the executive bureau favored the postponement. The CIO and the British Trades Union Congress attributed⁸ this postponement to the influence of the Soviet trade-union organization, which had published a statement in the January 24, 1948, issue of TRUD, its official daily, accusing the proponents of the European Recovery Program of supporting "American imperialist monopolies which had put forward the so-called 'Marshall Plan' for the enslavement of Europe's peoples." The statement continued: "Discussion of the question, known to be unacceptable to a majority of the national trade-union organizations, ought not to be forced."

The WFTU Information Bulletin of February 15, 1948, published a communique from the secretariat censuring the Belgian General Confederation of Labor and the Dutch Confederation of Trade Unions (NVV)—both WFTU affiliates—for supporting a proposal, advanced by the American Federation of Labor, for an independent conference of the national trade-union centers of the countries participating in the recovery program. In the same issue there was also published a statement made by the Central Committee of the

Workers' General Trade Union of Bulgaria labelling as agents of "American imperialists" Green and Carey in the United States, Jouhaux in France, Oldenbroek in the Netherlands, Schumacher in Western Germany, and Finet in Belgium.

From February 25 to 29, representatives of the CIO conferred in Moscow with representatives of the All-Union Central Council of Trade Unions of the Soviet Union in regard to freedom of discussion in the WFTU. Following this meeting, the AUCCTU issued a statement expressing disapproval of the convening of an international trade-union conference independent of the WFTU.⁹ Similar objections had come from trade-union organizations in Bulgaria, Czechoslovakia, France, Hungary, Poland, Rumania, and Yugoslavia.¹⁰ The AUCCTU statement also declared that the WFTU could not adopt any position on the Marshall Plan which would be binding for national trade-union centers, because every national trade-union organization must be absolutely free to determine its attitude towards the ERP. This represented a reversal of the previous position of the AUCCTU. Furthermore, the previous opposition to a discussion of the ERP in the WFTU (see preceding quotation from Trud) was abandoned and it was stated that "the Soviet trade-unions consider that it would be more democratic if the exchange of opinions of trade-unions on the 'Marshall Plan' were to take place in the executive committee of the WFTU."

After it became clear that discussion of the European Recovery Program by the WFTU would be delayed beyond February 1948, a conference of trade-union organizations in the countries participating in the European Recovery Program was convened (March 9 and 10) in London by the British Trades Union Congress and union organizations of the Benelux countries (Belgium, Luxembourg, and the Netherlands). Such a conference had long been urged by the American Federation of Labor. It was attended by trade-unionists from 12 of the 16 ERP countries and from other nations.¹¹ National centers not affiliated with the WFTU as well as affiliated centers were represented. From the United States, delegates were sent by the American Federation of Labor,

⁵ See Monthly Labor Review, May 1945 (p. 1030), and Report of the World Trade Union Conference, February 6th to 17th, 1945, published by British Trades Union Congress.

⁶ See Monthly Labor Review, January 1946 (p. 47).

⁷ Statement of James B. Carey, November 18, 1947, CIO mimeograph release (p. 16).

⁸ Report on the CIO Representative's trip to Europe, March 22, 1948, CIO mimeographed release.

⁹ See Professional'nye Souizy (Trade-Unions), Moscow, March 1948 (p. 5).

¹⁰ WFTU Information Bulletin, February 15, 1948 (pp. 4-6).

¹¹ Delegates from Austria, Belgium, Denmark, Eire, France, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom; observers from Italy.

the Congress of Industrial Organizations, and the Railway Labor Executives' Association.

The London conference adopted a resolution supporting the European Recovery Program, and calling upon the trade-union movement in each participating country to seek close contact with its government in order to assure labor's maximum contribution to the economic rehabilitation of Europe. The ERP Trade-Union Advisory Committee was set up to secure unified action and to work out a basis of cooperation with the Committee on European Economic Cooperation.¹²

Opposition to the European Recovery Program was again expressed in the WFTU Information Bulletin (April 30, 1948) in a May Day manifesto issued by the general secretary in the name of the WFTU. The manifesto read in part as follows:

* * * the interests of capitalist monopolies, big business, industrial magnates and financiers are openly supported by the public authorities of certain states.

The economic power of these monopolists is used to intensify exploitation of labour to their own advantage. They want to attach unacceptable and anti-democratic conditions to the granting of aid to war-stricken countries. Pressure is used in their interventions against the democratic rights and freedom of nations.

The manifesto was not approved by the executive committee, and on April 30 it was repudiated by delegates from Great Britain, the United States, and a number of other countries supporting the European Recovery Program. These delegates maintained that since the WFTU had never agreed to a discussion of this matter at its meetings, the general secretary had acted improperly in implying that the organization had adopted a position opposed to it.

These and other statements appearing in the WFTU Information Bulletin were considered by some delegates at the Rome meetings to have been dictated by the personal convictions of some officials of the secretariat, notably those of Louis Saillant, the general secretary.¹³

As a result of these events, the Rome meetings had to deal with the issue of freedom of discussion

within the WFTU as well as with charges of political partisanship on the part of the WFTU secretariat made by the British, Netherlands, and United States representatives. The outcome of its discussion was the unanimous adoption by the executive committee¹⁴ of an agreement based on a proposal by Mr. Carey. The introductory clauses of this agreement reaffirmed the declarations of the 1945 London and Paris trade-union conferences, the all-inclusive nature of the WFTU and the principle that no one national center should seek to dominate the WFTU to the exclusion of any other national center or tendency. On the administration and policy of the WFTU the following points were included:

(1) That any national center has the right to submit any question it so desires for inclusion on the agenda. The Executive Bureau shall consider any matter on receipt of advance notice given in writing by the national center concerned.

(2) That there be regular quarterly meetings of the Executive Bureau. The dates shall be fixed after consultation between the president and the general secretary, subject to the convenience of the members of the Executive Bureau.

(3) The general secretary, assistant general secretaries and departmental heads shall not engage in any other work except with the expressed approval of the Executive Bureau.

(4) The Executive Bureau meeting in Paris, having decided that notices should be issued for a meeting of the advisory committee of the International Trade Secretariats to be followed by a representative conference of the ITS, it is now agreed that early steps shall be taken to enable these further consultations to take place.

(5) The organs of the WFTU shall not be used to publish or circulate attacks on the policies or administration of national centers affiliated to the WFTU. This does not preclude the publication of objective statements of policy of any national center.

(6) For the purpose of dealing with the publications of the WFTU there shall be an editorial board which shall consist of the general secretary and the three assistant general secretaries. The Board shall discuss questions of publication deemed likely to conflict with the interests of any national center.

(7) In the event of a question arising which vitally affects the interests of one or more national centers on

¹² An executive committee met on June 29 in order to prepare for the second meeting of the ERP Trade Union Advisory Committee in London, July 29-30.

¹³ In addition to his WFTU post, Mr. Saillant had until the Rome meetings held the position of secretary of the Communist-dominated French General Confederation of Labor.

¹⁴ Members of the subcommittee which prepared the agreement were A. Deakin, chairman (Great Britain), J. Carey (United States), V. Kurnosov (U. S. S. R.), V. Tewson (Great Britain), G. Di Vittorio (Italy), and L. Saillant, WFTU general secretary (France).

Labor-Management Disputes in July 1948

NO STOPPAGES OF INDUSTRY-WIDE CHARACTER, comparable with the bituminous-coal and meat-packing strikes in effect during March and April, occurred in July 1948, and the amount of time lost considerably declined. Probably the largest strike of the month was the captive mine dispute. The largest continuing strike, at the Boeing Airplane Co. in Seattle, Wash., since April 22, was still in effect at the end of July. The Nation's railroads, which were taken over by the Federal Government May 10 in order to avoid a Nation-wide strike, were restored to private operation July 10 upon settlement of the dispute. A wage settlement July 22 removed the threat of a strike by 116,000 automobile workers at plants of the Ford Motor Co.

Strike at "Captive" Coal Mines

A new contract was agreed upon in late June between the operators of bituminous-coal mines and the United Mine Workers of America (Ind.). After the June 27 to July 5 vacation period, the country's bituminous coal miners returned to work, except those employed in the captive mines operated by the large steel companies for their own use. Representatives of the steel companies refused to accept the union-shop provision in the 1948 contract (agreed to by the commercial operators), contending that this provision violated the Labor Management Relations Act. They filed an unfair labor practice charge against the union with the National Labor Relations Board, claiming that the union sought to coerce them into signing a contract containing the illegal union-shop provision.

The companies had offered earlier to accept the union-shop provision if employees voted for it, as provided under the Labor Management Relations Act of 1947. The UMWA officers' refusal to sign the non-Communist affidavits required by the act prevented such a vote under direction of the NLRB.

Under the miners' policy—"no contract, no work"—the 40,000 to 50,000 workers normally employed in the captive mines, did not return to work on July 6, at the end of the vacation period.

On July 9, the NLRB issued a formal complaint

which there is no accepted directly applicable decision, the matter shall be discussed by the general secretary and the assistant general secretaries. If agreement cannot be reached no action shall be taken until the matter has been considered by the Executive Bureau.

This agreement restricts the powers of the general secretary. It provides that future decisions administrative as well as in editorial matters are to be placed in the hands of a four-man committee, composed of the general secretary, and the three assistant general secretaries who, it is reported, will represent trade-union organizations of the United States, Great Britain, and the Soviet Union. In addition, it bans the publication of attacks on the policies and administration of national centers affiliated with the WFTU. It also stipulates that officials of the secretariat are not to engage in other work without the express approval of the executive bureau. As a result of the latter provision, General Secretary Saillant resigned from his post as secretary of the Communist-dominated French General Confederation of Labor.

Other Issues

The agenda of the Rome meetings also included matters similar to those which had been considered at earlier WFTU meetings. Among these were the unification of the German trade-union movement and its possible affiliation with the WFTU in the future; guaranties of trade-union rights in various countries; equal pay for equal work for men and women, and relationships between the WFTU and the International Labor Office¹⁴ and the United Nations Economic and Social Council.

The subject of the affiliation of national trade-union centers in Rhodesia, Malta, and Tunisia, on the agenda for discussion, was deferred until the next meeting of the executive bureau in September 1948. Also postponed until that date was debate on the application for affiliation made by the French General Confederation of Labor—Force Ouvrière, which had split from the Communist-dominated General Confederation of Labor on December 10, 1947.

¹⁴ In June 1948, the ILO Governing Body admitted the WFTU to a "consultative relationship with the ILO." The Inter-American Confederation of Workers and the International Confederation of Christian Trade Unions were accorded similar status. All three organizations are subject to the Governing Body decision to require any nongovernmental organization seeking consultative status to the ILO to submit a copy of its constitution, information about its composition and the membership of its national affiliates, and a copy of its latest annual report.

charging union officials and the striking workers with violating the Taft-Hartley Law and sought to enjoin the strike in a Federal District Court at Washington. Justice T. Alan Goldsborough gave the union until July 13 to answer the charges. On that date, he recommended a direct and voluntary settlement of the dispute. Agreement was reached informally in the Judge's chambers; the union-shop provision was accepted by both sides, with the stipulation that it would be modified if court rulings require it.

The union president immediately instructed the miners to return to work the next day. On July 17, Justice Goldsborough dismissed the injunction petition brought by the Government against John L. Lewis and the UMWA. It was understood that the NLRB would continue to process through the courts the original complaint of unfair labor practices.

Continuation of Boeing Strike

Approximately 15,000 production workers have been involved in the strike at Boeing Airplane Co. plants in Seattle, Wash., since April 22. The International Association of Machinists (Ind.) rejected the company's offer of a 15-cent average hourly increase in wages and demanded increases averaging 30 cents an hour, eight paid holidays, and retention of the seniority clause in the old contract.

Efforts of the Federal Mediation and Conciliation Service at the end of July had been unsuccessful in bringing about a settlement. In May, company representatives refused to attend a conference called by this agency, claiming that the union had lost its collective-bargaining rights as a result of the "illegal" strike. The company regards the strike as a violation of the contract which, although scheduled to expire in 1947, contained a no-strike clause and provided that the contract should remain in effect until a new agreement was reached through negotiations or arbitration. It claimed also that the union violated the Labor Management Relations Act of 1947 by striking without giving the required 60-day notice.

Both the union and the company have filed damage suits against the other, attempting to recover large sums for alleged illegal acts. The union has also filed unfair labor practice charges with the NLRB in an attempt to force the company to bargain.

On July 24, a NLRB trial examiner completed his report, stating that the union, by negotiating for nearly 14 months before going on strike, had complied with the notice requirements of the Labor Management Relations Act, even though it gave no formal written notice. He rejected the company contention that the workers who struck lost their status as employees, and credited the union with unusual forbearance in negotiating such a long period. He further recommended that the company be required to bargain and reinstate the striking workers.

The company has attempted to recruit new workers and, at the end of July limited operations were being carried on although no settlement had been reached.

Return of Railroads to Private Operation¹

White House conferences between railroad officials and representatives of three operating unions—Brotherhood of Locomotive Engineers (Ind.), Brotherhood of Locomotive Firemen and Enginemen (Ind.), and the Switchmen's Union of North America (AFL)—resulted in the settlement of a prolonged wage dispute on July 8. Terms of the settlement provided for wage increases of 15½ cents an hour, retroactive to November 1, 1947, and various rules changes, some of which would further increase the workers' take-home pay.

The railroads were taken over by the Federal Government on May 10 to avoid a threatened strike by the three unions. They were returned to private operation on July 10.

Ford Motor Co. Wage Increase

Joint announcement of a wage settlement on July 22 by officials of the United Automobile Workers (CIO) and the Ford Motor Co. removed the threat of a strike by 116,000 Ford workers. The agreement becomes effective July 16, 1949, if ratified by August 16, and continues in effect until July 15, 1949.

The wage increase amounted to a minimum of 13 cents an hour in addition to certain improvements in fringe benefits—an improved vacation plan, premium pay for late shifts, group insurance plans, etc. General Motors and Chrysler had granted wage increases in May.²

¹ See Monthly Labor Review, June 1948 (p. 644) for earlier developments in the dispute.

² See Monthly Labor Review, June 1948 (p. 644).

Technical Notes

Wholesale Price Index: Policy on Revisions and Corrections¹

AFTER THE END OF WORLD WAR II, the Bureau of Labor Statistics undertook a complete reappraisal of the wholesale price index to determine the adequacy of its present over-all structure and of coverage of the groups and subgroups in the light of postwar changes in production and distribution. As a result, it was decided that a full-scale revision of the index would be made as soon as possible. Plans for the general revision were initiated to introduce weights based on the postwar economy, to improve sampling and weighting techniques, to add certain new commodities, to make certain changes in the basic classification of commodities (particularly in the special groupings), and to re-examine the base period (currently, the average for the year 1926 is the base). These plans cannot be fully developed and carried out, however, until data from the 1947 Census of Manufactures become available. In all likelihood at least a year will elapse before the general revision of the wholesale price index can be completed.

Previous major revisions were made chiefly to expand the reporting and commodity coverage and to change weighting patterns to allow for shifts in the composition of the economy. The last general revision was made in 1931, when 234 commodities were added. Several major revisions involved changes in the method of calculation. The present method of computation, known as the "fixed-base weighted aggregative method," was inaugurated in 1937, and replaced the "chain-type method" which had been in use from 1914. Despite these major revisions, the continuity of the index has been preserved as nearly as possible down through the years, and every effort will be made to preserve it in the future.

At different times during the period 1937 to

1941, a number of new commodities were added to the index to improve the coverage of certain existing subgroups and to make possible the creation of several new subgroups. After World War II started, however, this activity was virtually suspended, partly because production of certain manufactured products for civilian use was discontinued, and also because of the Bureau's preoccupation with special wartime projects.

Revision Policy

During the past 2 years, work has progressed on the review and revision of samples of commodities and of reporters in the various subgroups to be used in the forthcoming general revision of the entire index. Thus far, major revisions in coverage (including the redistribution of weights within subgroups) have been completed for four subgroups—motor vehicles, tires and tubes, furniture, and agricultural machinery and equipment. As each subgroup revision was completed, the revised sample was immediately incorporated into the calculation of the current index, and since that time, the published all-commodity index and the pertinent group index, have reflected the movements of the improved subgroup sample instead of the old sample. The first months in which the subgroup revisions were carried through to the pertinent group and the all-commodity indexes were as follows: October 1946, motor vehicles, the metals and metal products group; June 1947, tires and tubes, the miscellaneous group; November 1947, furniture, the housefurnishings goods group; and February 1948, agricultural machinery and equipment, the metals and metal products group.

Although these four revised subgroup samples were introduced into the all-commodity and the respective group indexes currently as each revision was completed, no retroactive revisions were published. However, revised subgroup indexes were computed retroactively for the period that revision was considered necessary. These extend

¹ Prepared by S. Robert Mitchell, of the Bureau's Division of Prices and Cost of Living.

back monthly to January 1942 for motor vehicles, to February 1939 for tires and tubes, to January 1943 for furniture, and to January 1946 for agricultural machinery and equipment. These indexes, which have been (or soon will be) published in special reports² describing in detail the nature of the revisions made, supersede the previously published indexes for these subgroups. The letter "R" is placed by each of these subgroups in all current publications to call attention to the fact that the indexes shown are based on revised samples.

In the derivation of the revised subgroup indexes for these periods, a "linking" process was used to maintain the continuity of the subgroup indexes, despite the changes in samples. This linking process involved, first, the selection of a "link month" for each subgroup, or a month considered appropriate for equalizing the index for the revised subgroup with the original index computed from the old sample. Then, the weighting pattern for the new sample was adjusted so that the subgroup aggregate³ obtained in the link month, by using the adjusted weights for the new sample, would be the same as the aggregate originally computed with the old sample; thus, the index would be unchanged for the link month regardless of which sample was used. The adjusted weights for the new sample were then used for each month covered by the revision, in order to compute the revised subgroup indexes. The link months, or points for splicing the new samples with the old, were December 1941 for motor vehicles, January 1939 for tires and tubes, December 1942 for furniture, and January 1948 for agricultural machinery and equipment. The selected link month for each subgroup was the month immediately preceding the earliest month of the period covered by the revision, except for agricultural machinery and equipment. For this subgroup, the link month was determined to be January 1948, but the revision was projected back to January 1946.

It is important to observe that the levels of the published all-commodity and the respective group

indexes generally have been affected in the first month of incorporation of a revised subgroup into the calculation. The degree of the change reflects the differences⁴ between the movements of the revised and the unrevised subgroup indexes since the link month. Thus, if the motor vehicle revision had not been introduced in October 1946, the indexes for the metals and metal products group would have been 114.3 for that month instead of 125.8 as presently published, and for all commodities 132.5 instead of 134.1. If the tires and tubes revision had not been carried through to the miscellaneous group in June 1947, the index for that group would have been 116.6 instead of 113.5 for June 1947, and the all-commodity index 148.0 instead of 147.7. The index of 137.5 for the housefurnishings goods group, as currently published for November 1947 would have been 133.2 if the furniture revision had not been introduced; but the effect on the all-commodity index was negligible because of the small weight of this subgroup in the over-all index. Introducing the revised agricultural machinery and equipment subgroup sample into the calculation of the metals and metal products group and all-commodity indexes in February 1948 (the month immediately following the link month), did not significantly change these indexes, because of the similarity in the movements of both the old and the new subgroup samples in such a short period of time.

As revisions of other subgroups are completed, the Bureau will continue to follow the policy of currently introducing them into the all-commodity and the respective group indexes. Retroactive revisions will not be made, except possibly for the 2 months for which preliminary indexes have been issued. This policy is being followed in order to avoid repeated revisions of previously published group and all-commodity indexes as additional subgroup revisions are completed. If the levels of the group and all-commodity indexes in the first month a revised subgroup is introduced into the calculation, differ significantly from those that would have resulted if the original sample had been continued, the latter indexes will be provided in a footnote in all Bureau publications presenting indexes for that particular month. There will be no difference in these indexes, however, when the trends of the revised and the unrevised subgroup

² The revised indexes for motor vehicles and tires and tubes were attached to the regular report on the wholesale price index for April 1948. The revised indexes for furniture and for agricultural machinery and equipment will be issued in the near future in special reports.

³ A subgroup aggregate for any month is the total of the products obtained by multiplying the average price of each commodity during the month by its weight. The index for the month is obtained by dividing this aggregate by a similarly computed aggregate for the base year (1926) and multiplying the result by 100.

⁴ These differences reflect the use of corrected prices in computing the revised subgroup indexes as well as changes in samples.

the first indexes are identical (or very nearly so) during the period from the link month to the month of introduction of the revised sample into the group and commodity indexes. Every effort will be made to keep this period as short as possible in future subgroup revisions, since the trends of revised and unrevised subgroup indexes generally diverge less over short periods of time.

The policy of publishing revised subgroup indexes for the entire period covered by the revision will be continued for other subgroups as they are revised. Special reports will be issued for each revised subgroup, presenting the revised indexes and describing in full the nature of the revision. All subsequent revisions appearing in regular publications will be noted as previously explained for the four subgroups already revised.

When the general revision of the wholesale price index is made—possibly late in 1949—the indexes for all commodities and for all the groups will be revised retroactively at one time for the entire period covered by the over-all revision. The public will be advised well in advance as to when this full-scale revision of the index will be put into effect, and the release presenting the revised indexes will describe in detail the nature of the general revision and its relationship to the present wholesale price index.

Correction Policy

In the current calculation of the wholesale price index, the Bureau makes every effort to use the best possible price information for the commodities included. It is necessary in certain instances, however, to correct previously published index numbers because of late reports, incorrect reports or other errors in prices previously used. For this reason, the Bureau currently issues the wholesale price index on a preliminary basis for 2 months. Corrections received during the first month after the first preliminary publication of the index for a given month are incorporated in the second preliminary publication, and the index numbers that have been corrected are noted with a "C." In the third publication of the index for a given month, any additional corrections received during the preceding month are also made; the letter "C" is used to indicate those indexes that have been corrected since the previous publication.

When the wholesale price index for a given

month has been published for the third time (the third successive month of printing), the index is no longer considered preliminary and is not ordinarily subject to correction on a current basis. However, in the middle of each year, corrected index numbers will be calculated for each month of the preceding calendar year (and for the average of that year), which will take account of all corrections that may have accumulated since the third publication of the index for each month. These will be the final corrections in the index numbers for the months in the calendar year covered, and the corrected indexes will be published in the annual bulletin on wholesale prices for that year.⁵ Changes in index numbers issued in this annual bulletin will be made only as the result of a major revision, in accordance with the revision policy described above.

General Description of the Index

The Bureau of Labor Statistics has issued continuously since 1902 an official wholesale price index as an indicator of general price trends and average changes in commodity prices at primary market levels.⁶ The index was extended by the Bureau on a monthly basis, back to 1890, and annually as far back as 1749, by using data compiled in a number of special Government surveys and privately financed research projects. Separate monthly indexes are available for major groups of commodities from the year 1890, and for most of the subgroups from 1913.

The Bureau's wholesale price index thus provides one of the most comprehensive examples of a continuous economic series in the United States. It includes at the present time more than 850 individual commodities, which are classified into 10 major groups and 49 subgroups. These commodities are also combined into 5 special groupings for which separate indexes are issued—raw materials, semimanufactured articles, manufactured products, all commodities other than farm products, and all commodities other than farm products and foods. Current indexes are published regularly in the Current Labor Statistics department of the Monthly Labor Review.

⁵ An advance publication of the finally corrected index numbers for each month of the preceding calendar year will be made as an attachment to the appendix of the first regular monthly wholesale price report issued after the completion of this work.

⁶ In general, the prices used in the index are those charged by manufacturers or producers or are those prevailing on commodity exchanges.

Consumers' Price Index: Relative Importance of Components¹

THE RELATIVE IMPORTANCE, as of December 1947, of the items and of the major groups of items in the consumers' price index is presented in the table at the end of this article. These relative-importance figures is percentage distributions of the value factors which result in the index calculation when average 1934-36 family expenditures for groups of items are multiplied by price relatives that measure average price changes of the items in the group.

The expenditure data on which the index is based are actual expenditures of wage earners' and clerical workers' families during some 12-month period between 1934 and the spring of 1936, obtained in a survey of consumers' expenditures conducted by the Bureau of Labor Statistics. In that survey, significant differences were found to exist between the individual cities in average expenditures for items and groups of items. Therefore, value factors and index numbers are calculated separately for each city and combined for the United States with the use of population weights.

The commodities and services actually priced and used in the calculation of the consumers' price index are a sample of all goods and services bought by wage earners' and clerical workers' families. In effect, however, the quantities of all goods and services purchased by these families in the survey year are implicit in the index construction. This becomes evident when the expenditure data basic to the index weight determination are considered in terms of quantities and prices. The quantity of each article or service bought, multiplied by the price paid, yields the amount spent for each item; and the sum of all such expenditures for individual items is the total cost of all the goods and services purchased. If the price of each item is obtained for a later date, and these prices are multiplied by the same quantities, the sum of these products is the cost of the same quantities of goods and services at the later date. A comparison of the two costs is an index of the average change in prices

that occurred from one date to another for items purchased.

Since broad groups of items have distinctive price movements over periods of time, it would be unnecessary (even if it were operationally manageable) to obtain prices for all articles and services purchased in order to measure the average price change for the group. If the relative change over a period of time in the price of one item in a group of items whose price movements are similar is applied to the total expenditure for specified quantities of the items included, the cost for the same quantities of the items at the later date can be closely approximated. In other words, the price movement of the one selected item can be imputed to all items in the related group. In the construction of the consumers' price index, for example, the price movement of fresh fluid milk was imputed to a group of related items having similar price movements, including, in addition to fresh fluid milk, such milk products as buttermilk, skimmed milk, dried milk, and cream (but not canned milk). Since prices of these items move together, the change in the price of fresh fluid milk over a period of time, applied to the total average expenditure for the group, will approximate the cost of the same quantities of items in the group at the later date. This procedure gives approximately the same results as would be obtained if the quantity of each item were multiplied by its price at the later date and these products added together, as shown in the following hypothetical example.

Hypothetical example of effect of imputed price change in the consumers' price index:

Item	Survey year			Later date	
	Average quantity purchased	Average price	Average expenditure	Average price	Estimated cost
	1	2	3	4	5
Fresh fluid milk.....	Lbs. 200	Cents 6.0	\$12.00	Cents 10.8	\$21.60
Buttermilk and other milks.....	5	5.0	.25	19.0	.95
Cream.....	3	25.0	.75	45.0	1.35
Total cost for same quantities.....			13.00		23.90

Relative change in price of fresh fluid milk, $\frac{10.8}{6} \times 100 = 180$.

Relative change times average expenditure in survey year, $180 \times \$13.00 = \23.40 .

¹ Price estimated.

¹ Prepared by Abner Hurwitz, Chief of the Bureau's Cost of Living Branch.

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The quantity weights of the consumers' price index are the average quantities of all goods and services purchased by wage earners' and clerical workers' families in the survey year (1934-36), as shown in column 1 of the example. They are combined for related groups of items by adding the expenditures for the group (col. 3). These total group expenditures are allocated to the item selected for pricing, and are adjusted from period to period by the relative price change of the selected item. The adjusted expenditures are the value factors which are added for major groups of items and for all items combined and are compared with corresponding value factors for the index base period (1935-39), to obtain the index number. The percentage distribution of the value factors to items of the group and of all items indicates the relative importance of the items and the groups in the index at any point of time.

Quantity weights were adjusted during the war period to account for rationing and shortages that existed at that time, but have since been restored to their original amounts. The items priced for the index, however, have been changed over the years, for various reasons. When the character of goods available in stores changes, new items are added so that the price movements of items currently purchased can be measured. In this manner, nylon stockings replaced silk and rayon hose; canteen sets replaced dining-room suites. To maintain the consumers' price index after June 1947, with reduced staff and facilities, the Bureau was forced to decrease the total number of items priced for the index. At the same time, articles of children's clothing were added in order to improve the measurement of the movement of apparel prices in general. Expenditures allocated to those items for which pricing was discontinued were re-allocated to currently priced items, and expenditures allocated to items which previously represented the price movement of children's clothing were redistributed. Determinations as to which items were to be dropped, and the reallocation of expenditures, were based on the same principle that was followed in the original selection of items and might imputation, so that the priced items still represent broad groups of items having distinctive price movements. Since these adjustments changed the value factors, they affected the im-

portance of the individual commodities and services in relation to the group and all-items totals of the index. However, such adjustments are made within the major groups of items, and do not affect the relationship of the groups to the total index.

Aside from changes resulting from adjustments of this kind, the relative importance of the individual items and the groups change from period to period as prices of goods and services increase or decrease at different rates. Within the fuel, electricity, and ice group, for example, decreasing utility rates have lowered the value factors for gas and electricity, while higher prices for coal and oil have increased the value factors for other fuels. The relative importance of the utilities to the group total, therefore, has declined, while the importance of other fuels has risen steadily. Among the major groups of the index, foods have assumed greater relative importance, as prices of foods increased at a much more rapid rate than did prices of other goods and services. Rents have increased much less than most other prices; therefore, the relative importance of rents in the index has fallen.

Relative-importance figures for major groups of items can be adjusted by relative price changes in the same manner as are the value factors. If the group index numbers (which measure the relative change in prices for the groups from the base period to a given period) are multiplied by the corresponding relative importances of the groups in the base period, and the total of the products is reduced to 100 percent, the resulting figures will represent the relative importances of the groups in the given period. The sum of products divided by 100 will approximate the "all items" index for that period, since it is the weighted average of the group indexes. These figures will differ slightly from those published by the Bureau, because they are calculated with numbers rounded to one decimal place. If the relative change in the group indexes from one period to another are multiplied by the relative importances of the groups in the earlier period, a similar operation on the figures will give the relative importances for the later period and the average relative change in the "all items" index. Calculations for October and December 1947 are shown in the example following.

Example of adjustment of relative-importance figures for major groups of items:

Groups	Relative im- por- tances ¹ 1935-39 (per- cent)	In- dex (1935- 39=100) Oct. 1947	Prod- ucts (col. 1 x col. 2 ÷ 100)	Rela- tive im- por- tances (col. 1 x Oct. 1947 (per- cent)	Rela- tive change in index Oct. to Dec. 1947	Prod- ucts (col. 4 x col. 5 ÷ 100)	Rela- tive im- por- tance Dec. 1947 (per- cent)
	1	2	3	4	5	6	7
Food.....	33.9	201.6	68.3424	41.7	102.6	42.7842	42.0
Apparel.....	10.5	189.0	19.8450	12.1	101.2	12.2452	12.0
Rent.....	18.1	114.9	20.7909	12.7	100.4	12.7508	12.5
Fuel, etc.....	6.4	125.2	8.0128	4.9	102.1	5.0029	4.9
Housefurnish- ings.....	4.2	187.8	7.8876	4.8	101.9	4.8912	4.8
Miscellaneous:							
Allocated items.....	22.7	141.8	32.1886	19.6	101.8	19.9528	19.6
Gifts, contribu- tions, and other unallo- cated items ²	4.2	163.8	6.8796	4.2	102.0	4.2840	4.2
All items.....	100.0	163.8	163.9529	100.0	102.0	101.9111	100.0

¹ Relative importances of groups in the base period for individual cities and for the U. S. are published in BLS Bulletin 609, "Changes in Cost of Living in Large Cities of the United States."

² These items are included in the miscellaneous group, but are not allocated to priced items. Their value factors are adjusted by changes in the "all items" index.

It may be desired to estimate the "all items" index for some future period on the basis of independent forecasts of price changes for the separate groups from the latest date for which the consumers' price index is available.

This can be accomplished by expressing the estimated group changes in terms of relative changes and weighting these by the relative importance of the groups at the latest index period. The operation is the same as that described above.

With the relative-importance figures and group index numbers, it is possible also to calculate indexes for selected groups of items for any period desired. For example, if an index for commodities and services other than foods is required for October 1947, the base period relative-importance figure for foods is omitted and the figures for the remaining groups increased to total 100. The appropriate group indexes are then weighted by these revised relative-importance figures to obtain the index number of 144.7 for commodities and services other than foods.

It is apparent that relative-importance figures represent the distribution of expenditures only for the survey year for which the basic expenditures data were obtained. In any other period, they represent the distribution of costs, at prices pre-

vailing at that time, of the same quantities of goods and services purchased in the survey year. As prices increase without corresponding increase in income available for current expenditures, families tend to make substitutions of cheaper articles for the more expensive items, or to postpone purchases until more favorable conditions exist. When spendable incomes increase more rapidly than prices, families are able to buy more of better clothing, housefurnishings, and luxuries, and food claims a progressively smaller proportion of family expenditures. Such influences, no doubt, have been at work since the quantity weights for the consumers' price index were established, and it is unlikely that wage earners' and clerical workers' families are now buying the same quantities and kinds of goods and services they purchased in the years 1934-36.

Example of calculation of indexes for a selected group of items for a given period:

Groups	Relative im- portances 1935-39		Indexes (1935- 39=100) Octo- ber 1947	Prod- ucts (Col. 2 x 3 ÷ 100)
	All groups	All groups other than foods		
	1	2	3	
Foods.....	33.9			
Apparel.....	10.5	15.9	189.0	30.8
Rent.....	18.1	27.3	114.9	20.8
Fuel, etc.....	6.4	9.7	125.2	19.9
Housefurnishings.....	4.2	6.4	187.8	11.1
Miscellaneous items:				
Allocated.....	22.7	34.3	141.8	48.1
Unallocated.....	4.2	6.4	163.8	10.1
All items.....	100.0	100.0	163.8	144.7

The only way to discover how families are currently spending their money is to make actual surveys of family expenditures. The Bureau is now making such surveys in 3 cities each year. 1945 family expenditure data were obtained for Birmingham, Indianapolis, and Portland, Ore.; 1946 data for Milwaukee, Scranton, and Savannah; and 1947 data for Washington D. C., Manchester, N. H., and Richmond. These data are being summarized as rapidly as possible and will be used to revise the quantity weights and the list of items priced for the Bureau's consumer price indexes.

of items included in CPI and relative importance of each item in major groups of items and in total index, December 1947

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Item	Percentage distribution of index value factors, December 1947	
	Group total	All items total
100.0	100.0	42.0
Meats and bakery products	13.8	5.8
Cereals: Flour, wheat	2.5	1.0
Corn flakes	.5	.2
Corn meal	.4	.2
Rice	.3	.1
Rolled oats	.7	.3
Bakery products: Bread, white	7.8	3.3
Vanilla cookies	1.6	.7
Meats	30.8	12.9
Beef: Round steak	4.2	1.8
Rib roast	3.9	1.6
Chuck roast	1.8	.7
Hamburger	1.6	.7
Veal: Cutlets	1.9	.8
Pork: Chops	3.4	1.4
Bacon, sliced	2.3	1.0
Ham, whole	2.3	1.0
Salt pork	.5	.2
Lamb: Leg	2.7	1.1
Poultry: Roasting chickens	2.9	1.2
Fish: Fish, fresh, frozen	2.2	.9
Salmon, pink, can	1.1	.5
Dairy products	19.1	8.0
Butter	7.0	2.9
Cheese	1.7	.7
Milk, fresh (delivered)	6.7	2.8
Milk, fresh (grocery)	2.8	1.2
Milk, evaporated	.9	.4
Eggs, fresh	6.3	2.6
Fruits and vegetables	20.6	8.7
Fresh fruits and vegetables	16.1	6.8
Fruits: Apples	2.2	.9
Bananas	1.7	.7
Oranges	2.0	.8
Vegetables: Beans, green	.7	.3
Cabbage	.8	.4
Carrots	1.5	.6
Lettuce	1.4	.6
Onions	1.3	.6
Potatoes	3.4	1.4
Spinach	.7	.3
Sweetpotatoes	.4	.2
Canned fruits and vegetables	3.1	1.3
Fruits: Peaches	.4	.2
Pineapple	.4	.2
Vegetables: Corn	.6	.2
Peas	.4	.2
Tomatoes	1.3	.5
Dried fruits and vegetables	1.4	.6
Fruits: Prunes	.7	.3
Vegetables: Navy beans	.7	.3
Beverages: Coffee	2.9	1.2
Fats and oils	3.5	1.5
Lard	1.3	.6
Shortening, hydrogenated	.6	.3
Salad dressing	.8	.3
Oleomargarine	.8	.3
Sugar and sweets: Sugar	3.0	1.3
APPAREL	100.0	12.1
Men's: Overcoats	23.9	2.9
Topcoats	1.7	.2
Suits	1.2	.1
Trousers	8.4	1.0
Sweaters	.9	.1
Women's: Coats, heavy, fur-trim	.6	.1
Coats, heavy, plain	2.7	.3
Coats, light, plain	1.6	.2
Suits	1.3	.2
Dresses	1.2	.2
Girls: Coats	.6	.1
Boys: Overcoats	1.2	.1
Mackinaws	.4	.1
Suits	.3	(1)
Slacks	1.1	.1
	.7	.1

Item	Percentage distribution of index value factors, December 1947	
	Group total	All items total
APPAREL—Continued		
Cotton	19.4	2.3
Men's: Suits	.3	(1)
Trousers	.6	.1
Overalls	1.3	.2
Shirts, work	.8	.1
Shirts, business	2.9	.4
Pajamas	.8	.1
Shorts	1.1	.1
Undershirts	.6	.1
Unionsuits	.8	.1
Socks	1.1	.1
Women's: Dresses, street	1.4	.2
Dresses, house	2.2	.3
Nightgowns	.5	.1
Girls: Dresses	1.5	.2
Slips	.3	(1)
Panties	.3	(1)
Anklets	.4	(1)
Boys: Shirts, polo	.4	(1)
Shirts, convertible collar	.4	(1)
Shorts	.5	.1
Yard goods	1.1	.1
Diapers	.1	(1)
Silk, rayon, and nylon	14.1	1.7
Men's: Socks	.6	.1
Women's: Dresses	5.0	.6
Slips	1.8	.2
Panties	.6	.1
Hose	5.3	.6
Yard Goods	.8	.1
Footwear	16.5	2.0
Men's: Shoes, street	6.7	.8
Shoes, work	1.1	.1
Rubbers	.4	.1
Women's: Shoes, street	5.9	.7
Children's: Shoes, street	2.4	.3
Other garments	4.1	.5
Men's: Jackets, leather	.5	.1
Hats, felt	1.1	.1
Women's: Coats, fur	1.0	.1
Girdles	1.0	.1
Gloves, leather	.5	.1
Services	4.5	.6
Men's: Dry cleaning	2.3	.3
Shoe repairs	1.5	.2
Women's: Shoe repairs	.7	.1
Other apparel	17.5	2.1
RENT	100.0	12.4
FUEL, ELECTRICITY, AND ICE	100.0	4.9
Electricity	17.6	.9
Gas	18.3	.9
Ice	11.9	.6
Kerosene	.8	(1)
Fuel oil	5.8	.3
Anthracite coal, Pennsylvania	14.5	.7
Bituminous coal	22.3	1.1
Coke	7.7	.4
Briquets	.1	(1)
Wood	.5	(1)
Lignite	.4	(1)
Sawdust	.1	(1)
HOUSEFURNISHINGS	100.0	4.7
Towels	1.8	.1
Sheets	4.2	.2
Curtains	3.6	.2
Blankets	1.8	.1
Rug, Axminster	6.5	.3
Rug, felt base	1.8	.1
Living room set, medium	4.4	.2
Living room set, inexpensive	9.7	.4
Dining room set, medium	4.8	.2
Bedroom set, medium	3.6	.2
Bedroom set, inexpensive	5.7	.3

0.05 percent or less.

List of items included in CPI and relative importance of each item in major groups of items and in total index, December 1947—Continued

Item	Percentage distribution of index value factors, December 1947		Item	Percentage distribution of index value factors, December 1947	
	Group total	All items total		Group total	All items total
HOUSEFURNISHINGS—Continued			MISCELLANEOUS—Continued		
Sofa beds.....	2.1	0.1	Medical care—Continued		
Bedsprings.....	1.3	.1	Optometrist: Glasses.....	0.6	6.1
Mattresses.....	2.9	.1	Medicines and drugs: Prescriptions.....	.9	.2
Radios, table model.....	11.2	.6	Aspirin.....	.2	(1)
Sewing machines, electric.....	1.4	.1	Quinine.....	.1	(1)
Washing machines, electric.....	6.8	.3	Antiseptic, iodine.....	.2	.1
Vacuum cleaners, electric.....	2.3	.1	Milk of magnesia.....	.5	.1
Refrigerators, electric.....	14.0	.7	Accident and health insurance.....	.6	.2
Stoves, cook.....	6.7	.3			
Dinnerware, plate.....	1.8	.1	Household operation.....	13.9	3.3
Broom.....	1.1	(1)	Laundry services.....	3.6	.9
Other housefurnishings.....	.5	(1)	Telephone services.....	2.3	.5
			Domestic services.....	.7	.2
MISCELLANEOUS.....	100.0	23.9	Postal services.....	.4	.1
Transportation.....	26.2	6.2	Water rent.....	.8	.2
Automobiles.....	8.9	2.0	Laundry soap: Bar.....	1.4	.3
Tires.....	.6	.1	Granulated.....	2.1	.8
Gasoline.....	5.8	1.4	Toilet tissue.....	1.1	.3
Motor oil.....	.5	.1	Other household supplies.....	1.5	.3
Auto repairs.....	.6	.2			
Taxes.....	.5	.1	Recreation.....	19.6	4.7
Automobile insurance.....	1.1	.3	Newspapers.....	4.6	1.1
Streetcar fares.....	5.4	1.3	Motion pictures: Adults.....	6.8	1.6
Bus fares.....	2.5	.6	Tobacco: Cigars.....	1.1	.3
Railroad fares.....	.3	.1	Cigarettes.....	6.3	1.5
			Pipe tobacco.....	.8	.2
Medical care.....	13.0	3.1	Personal care.....	10.2	2.4
Physicians: Office visit.....	1.9	.5	Barber service: Haircuts, men.....	4.0	.9
House visit.....	1.7	.4	Beauty shop service: Wave set.....	1.1	.3
Obstetrical care.....	.6	.1	Permanent wave.....	.9	.2
Surgeons: Appendectomy.....	.4	.1	Toilet articles: Toilet soap.....	1.9	.4
Specialist: Tonsillectomy.....	.4	.1	Toothpaste.....	1.2	.3
Dentist: Filling.....	1.9	.5	Face powder.....	.6	.1
Extraction.....	.7	.2	Sanitary napkins.....	.3	.1
Hospitals: Men's pay ward.....	.9	.2	Razor blades.....	.2	.1
Room.....	1.4	.3	Gifts, contributions and other unallocated items.....	17.1	4.2

¹ 0.05 percent or less.

Housing Statistics, 1946 and 1947: Sampling Methods and Survey Techniques¹

SOON AFTER INITIATION of the Veterans' Emergency Housing Program in 1946, the need for more complete and accurate information on the volume of residential construction became evident. The Bureau of Labor Statistics was called upon to examine its sources of information in the field of housing statistics, and to develop a program which would provide better measures of nonfarm housing activity. Especially needed was information concerning local areas, particularly areas of most severe shortage—mainly the congested industrial centers. Because of the complexity and difficulty of developing and maintaining them, such local statistics had never been prepared. The difficulty lay primarily in the lack of a reliable source of information to cover entire areas including the parts surrounding the central cities, except by a field survey.

The most comprehensive continuing source of information on nonfarm residential construction is the record of local building permits.² However, while it is estimated that approximately 90 percent of the urban population is found in communities from which the Bureau receives building-permit reports, a large volume of the housing construction in industrial areas occurs in sections in which permits are not required. Building-permit records as a source of information are lacking in several other respects: (1) some permits are obtained but never used—cancellation of an unused permit may not be reported or recorded; (2) the issuance of a permit does not coincide with the actual start of construction; and (3) applications for permits have been found consistently to understate the actual construction costs. For the Bureau's estimates of the number and value of nonfarm housing units started each month, adjustments taking these deficiencies into account had regularly been made. The correction factors used were based in part on data from the Housing Cen-

sus of 1940 and in part on earlier Bureau field surveys. More complete and current information was needed, not only to improve the national estimates, but also to furnish statistics for the local areas.

Sample Design

In April 1946, the first area housing program was initiated. Its primary purpose was to provide housing statistics for local areas. At the outset, it was necessary to select an appropriate survey unit. This decision involved a choice between industrial areas, which are made up of entire counties, and the Census metropolitan districts, the boundaries of which often cut across county and other minor civil division lines. Industrial areas were chosen, because (1) their boundaries are easily defined, thus simplifying the task of administering the program, and (2) much helpful and related information concerning such factors as population, number of nonfarm units existing in 1940, and migration, is available for entire counties but not for parts of counties making up metropolitan districts.

For the purposes of various earlier studies, the Bureau had identified 110 industrial areas, made up of 160 counties. Available funds would permit the inclusion of only 72 such areas in the Area Housing Program. In choosing these, care was taken to include most of the largest areas as well as to provide broad geographic representation. The 72 areas selected included 82 percent of the total nonfarm dwelling units standing in 1940.

Surveys in the 72 industrial areas revealed a marked increase in volume of nonfarm housing activity outside the cities. It became evident that better coverage of smaller nonindustrial places was needed, not only to make information on local areas adequate but also to provide a basis for preparing accurate national estimates of the number of nonfarm housing units started. Because of budget considerations only 65 areas could be surveyed. Consideration of the number of nonfarm dwellings standing in 1940 in both industrial and nonindustrial counties and the number of units built between 1935 and 1940 led to the conclusion that a sample consisting of 28 industrial areas and 37 nonindustrial counties would give proper representation to both types of areas.

¹ Prepared by Edward M. Gordon of the Bureau's Construction Statistics Branch.

² Currently the Bureau is receiving monthly reports from over 4,000 localities on the number and valuation of building permits issued for new residential and nonresidential construction, as well as on additions, alterations and repairs to existing structures.

Of the 110 industrial areas, 9 automatically were included in the sample because of their large size. The remaining 101 were grouped according to (1) geographic division, (2) percent of population change from April 1940 to November 1943, and (3) percent of dwellings in structures containing 5 or more units. This resulted in 19 approximately equal-sized cells (on the basis of the number of units standing in 1940). By means of random numbers, an area was chosen from each cell to represent all areas within the cell.

The 37 nonindustrial counties were chosen in much the same manner, except that no counties were included automatically because of their large size. Thirty-seven approximately equal-sized cells were obtained by the following stratifications: (1) geographic combinations of localities; (2) the ratio of farm to nonfarm dwellings in each county; (3) net migration between April 1940 and November 1943; and (4) National Housing Agency authorizations for new dwellings during March 1946. A sample county was then chosen at random from each cell.

Before field work could be started on the 65-area program, funds were made available to increase the sample. Accordingly, 1 additional industrial area and 24 additional nonindustrial counties were selected from the larger cells. This 90-area program was conducted from October 1946 through March 1947. Changed plans made it necessary to revert to the originally planned program of 65 areas, which was in operation through September 1947.

Collection of Local-Area Data

Inasmuch as one of the objectives of the program was to produce statistics for individual areas, procedures had to be developed for collection of these data. With few exceptions, each area consists of one or more permit-issuing local governments (cities, townships, or counties) and of suburban or rural sections in which permits are not required. Different methods of collection had to be developed for the two types of places.

In the places requiring building permits, the records of permits issued furnished a practically complete and readily accessible source of information on all anticipated building. However, building permit records did not provide all the desired

information, such as actual starting and completion dates and the characteristics of the dwellings being built. These additional items could be obtained only from owners or builders at the construction site. As limited funds made it impossible to canvass all projects a method of sampling within each area was devised, and visits to sites were made only to cover a sample of the projects for which permits were issued.

Because of fluctuation in the number of units for which permits were issued each month, it was impossible to establish a fixed sample quota for each area. In view of the differences in types of structures and in building practices, it was determined that all projects containing 5 or more dwelling units should be canvassed. A sample of the smaller projects (usually including at least a third of those remaining) was then selected. Site visits were then made to all the large projects and to the selected smaller projects, to obtain the required information from builders or owners.

A study of the initial results revealed that the characteristics of housing being constructed in any given area did not change appreciably during a 3-month period. Therefore, a cycle system was developed for surveys in the permit-issuing places. The areas were divided into three groups, and a complete survey was made of each area only 1 month (the cycle month) out of each 3. During the cycle month, complete operations as described above were performed; i. e., a complete transcription of permits was made, a sample was selected, and site visits were made on all sample projects. During the intervening 2 months, the following procedure was employed: summaries of permits issued (including total number of dwelling units covered and total permit valuations) were obtained from all places in the areas; and site visits to obtain construction dates and data on characteristics were made only for large projects.³ In estimating the number and cost of units started in smaller projects, ratios and factors developed from the cycle-month surveys were applied to the permit summaries.

The method of collecting information in localities not covered by permits necessitated a complete canvass of new housing. To avoid the time-consuming and expensive procedure of searching

³ For this purpose large projects were defined as follows: in the industrial areas, projects of 25 or more units; in the nonindustrial counties, those of 10 or more units.

but projects by personal visits to all possible construction sites, leads were first obtained from various local sources, such as banks, building contractors, building material dealers, tax assessors' offices, real estate operators, etc. Records of authorizations to build issued by the Housing Expediter were checked for leads on large projects. In following up these leads, Bureau agents also discovered additional building for which no leading information had been obtained. This method did not guarantee complete coverage, but since non-permit-issuing places are generally small towns or sparsely populated unincorporated areas where the location of building activity is common knowledge, the number of items not covered was probably very small.

Inasmuch as these areas had no central source of information from which to obtain the total volume of building during intervening months, non-permit-issuing places were surveyed each month, rather than every third month as in the places for which permits were reported.

Use of Data for National Estimates

In addition to providing data for local areas, the information collected from the 65 areas made possible the preparation of improved national estimates. Approximately 90 percent of the urban population is located in cities having building-permit systems. The data for individual areas, when properly weighted to produce national ratios and averages, made possible the correction of building permit reports to allow for canceled projects and for the lag between date of permit issuance and actual start of construction. This improved the estimates of number of dwelling units started in urban areas. The data also furnished factors for correction of the understatement of costs as recorded on building permits. An especially important product of the surveys was the ratio between rural nonfarm and urban building, which, when applied to the estimates of urban building, yielded reliable estimates of units started in rural nonfarm areas. Analysis of information on construction time made it possible to prepare national estimates of the number of dwelling units completed each month. In addition, much useful information was developed on the characteristics of new housing for the country as a whole.

Reliability of Estimates

After the 65- and 90-area samples were selected, tests were made to obtain some measure of their adequacy for yielding estimates on a national basis. Data of the type which the samples were intended to measure were unavailable; therefore, several tests were made, using related information, as well as some kinds of data not so directly associated with the material being measured.

The tests were quite simple. The known facts for each sample area were multiplied by the weight assigned to that area, the products were totaled, and the sum was compared with the total for the United States as estimated by the Bureau of the Census or as reported by the National Housing Agency. Eight such tests were made for the 65-area sample, and nine for the 90-area sample. The results are presented in the following table.

Tests for the 65- and 90-area samples¹

Item tested	Known total for United States	Percent deviation from known total	
		65- area sample	90- area sample
<i>Test Group A</i>			
Number of nonfarm dwellings, 1940 ¹	19,683,189	-0.06	+0.02
Dwelling units built, 1935-1940.....	3,190,264	-5.5	-1.1
N. H. A. authorizations for new construction, March 1946.....	105,912	+2.8	(?)
N. H. A. authorizations for new construction, April 1946.....	121,618	+8	+1
<i>Test Group B</i>			
Civilian population, November 1943.....	127,307,884	(?)	-2.6
Urban population, 1940.....	74,423,702	(?)	-0.1
Rural nonfarm population, 1940.....	27,029,385	(?)	-4.0
Total nonfarm population, 1940.....	101,453,087	(?)	-1.1
<i>Test Group C</i>			
Number of farm dwelling units, 1940.....	7,642,281	-15.2	-4.6
Number of employees in retail trade, 1939.....	4,600,217	-1	+4.9
<i>Test Group D</i>			
N. H. A. authorizations for conversions, April 1946 (number of projects).....	18,990	+20.8	(?)
N. H. A. authorizations for conversions, April 1946 (number of dwelling units).....	24,385	+11.6	(?)

¹ The tests fall into the following four groups:

A: Those which relate quite closely to patterns of existing dwelling units or those to be built. The errors are reasonably small.

B: Those having to do with population. Note the second and third items combine to form the fourth. Errors are larger here, but still quite small.

C: Two tests which deal with factors related to nonfarm housing, but not so closely related as others. Errors here are larger, but still reasonably small.

D: Two tests having to do with conversion of existing structures into dwellings—one in terms of number of projects and the other in terms of number of dwellings. The large error in both cases seemed to preclude the use of the sample for measuring conversion of structures into additional dwellings without special treatment of atypical cases.

² This characteristic was used in calculating weights, and when tested should have yielded an exact answer. The error shown was introduced by rounding the weights to one decimal point.

³ Not tested.

Although these tests indicate that the 90-area sample produced somewhat more reliable estimates than the 65-area sample, it appeared that either sample could be used with reasonable assurance to measure the volume, and to provide broad indications as to the characteristics, of new housing.

Later, using actual data collected from the 65 areas, certain additional tests were made to determine the reliability of the estimates. In measuring the sampling error to which the 65-area estimates were subject, it would have been desirable to have an estimate of the variance within each stratum or cell. Since only one area was sampled in most of the cells it was not possible from the sample results to make even rough estimates of these variances. Therefore, in making these tests, the areas were grouped into three categories—(1) industrial areas, (2) urban counties, and (3) rural counties. As any improvement resulting from further stratification was ignored, these tests are regarded as providing outside estimates of the sampling errors.

The 1946-47 estimate of units started in rural nonfarm areas was made by applying a ratio to the estimated number of units started in urban areas. This over-all ratio was derived from ratios of units started in urban places to units started in rural nonfarm places in the 65 areas. To test the error in these over-all ratios, data for the year 1946 and the first 9 months of 1947 were used. The results showed a coefficient of variation in the area ratios of 12.2 percent for 1946 and 10.7 percent for the first 9 months of 1947. This means that the chances were 19 out of 20 that an actual count of total nonfarm units started during October 1947 would have yielded between 84,300 and 102,300 units, and of rural nonfarm units started, between 32,850 and 50,750 units; the Bureau's estimate was 93,300 total nonfarm and 41,800 rural nonfarm units started.

What the Program Yielded

The main findings of the area housing program were published monthly by the Bureau of Labor Statistics and were widely disseminated during the life of the project in 1946 and 1947. Information on the number of new privately financed dwelling units started each month in 59 areas⁴ and their

construction cost was presented in the Bureau's mimeographed reports on construction.⁵ The figures for 28 industrial areas appeared in the *Monthly Labor Review*⁶ and were analyzed for individual areas in press releases issued by the Bureau's regional offices. These data on cost and the volume of housing locally were made available often before publication, to agencies responsible for housing policy, to Congressional committees, and to private as well as public organizations needing them. They provided the background for evaluating the extent to which new housing was being introduced in areas of shortage, and for judging, therefore, the progress of the emergency housing program on the local level.

Descriptions of the housing provided—that is, summaries on sizes of units, kinds of exterior wall construction used, extent to which dwellings were serviced by public utilities, and race of intended occupants—were submitted in detail to the agencies needing them for use in formulation of housing plans and programs on both national and local levels. Some of the data of general interest are being analyzed for articles in forthcoming Bureau publications.

The improved Government estimates of the volume of new housing started nationally, and the newly provided estimates on home completions in 1946 and 1947, were made available to the press and to others early in the month following the month of reference. While data on completions have not been prepared since discontinuance of the area housing program in October 1947, segments of that program designed to improve the national estimates of the housing started were retained, in order to maintain the adequacy of the national data and the prompt release of monthly estimates.

published are as follows: Industrial areas—Atlanta, Boston, Buffalo, Chicago, Cleveland, Columbus, Dallas, Denver, Detroit, Fort Worth, Hartford, Indianapolis, Knoxville-Alcoa, Los Angeles, Memphis, Milwaukee, Minneapolis-St. Paul, New York-Newark-Jersey City, Philadelphia-Camden, Pittsburgh, Sacramento, San Francisco Bay, Springfield-Holyoke, St. Louis, Syracuse, Toledo, Washington, D. C., Worcester; Urban counties (central city in each urban county shown in parenthesis)—Adams, Ill. (Quincy), Cass, N. D. (Fargo), Chittenden, Vt. (Burlington), Dade, Fla. (Miami), Garfield, Okla. (Enid), Hancock, Me. (Ellsworth), Ingham, Mich. (Lansing), Lancaster, Pa. (Lancaster), Logan, W. Va. (Logan), Maricopa, Ariz. (Phoenix), Marion, Ohio (Marion), Marquette, Mich. (Marquette), Mobile, Ala. (Mobile), Plymouth, Mass. (Brockton), St. Lawrence, N. Y. (Ogdensburg), Sussex, N. J. (Newton), Tioga, N. Y. (Owego), Webster, Iowa (Fort Dodge), Whatcom, Wash. (Bellingham), Wichita, Tex. (Wichita Falls), York, Pa. (York).

⁴ See *Construction*, February-May 1947, September-November 1947, and January-February 1948.

⁵ Issue of each month July 1947 through January 1948.

⁶ Data for rural counties were not published but were available for official use. The industrial areas and urban counties for which figures were regularly

Recent Decisions of Interest to Labor¹

Wages and Hours²

Regular Rate of Pay. The Supreme Court held³ that premium payments to longshoremen, at one and one-half times the regular daytime rate, for night, week-end, holiday, and meal-period work, constituted part of the regular rate of pay, and hence could not be included in overtime compensation due under the Fair Labor Standards Act. The premium payments were made pursuant to a collective-bargaining agreement, in which they were designated as "overtime" as contrasted with "straight-time" pay for work during the so-called "basic working day." The purpose of the premium provisions was to stabilize working hours by penalizing work outside the basic working day. The contract made no provision for extra pay because of excessively long working hours. The Court explicitly recognized that when premiums are paid for work in excess of a bona fide standard, such premiums might be credited to overtime compensation due under the act.

The Court ruled that the longshoremen's regular rate of pay should be computed by adding the premiums for work at irregular hours to so-called "straight-time" pay received during the week, and dividing the total by the number of hours worked within the week. The regular rate, it

was pointed out, must be determined as an actual fact; it could not be arranged for by a collective-bargaining agreement. The premium was held to be in the nature of a shift differential for work at undesirable hours, since it was not paid because regular hours had previously been worked. The Court noted that the Fair Labor Standards Act overtime provisions were not made merely to stabilize employment, but also to reward employees for the strain of long hours.

Three justices dissented. Justice Frankfurter reasoned that since the phrase "regular rate" was not defined in the act, the Court should admit latitude of interpretation in bona fide collective-bargaining agreements. He contended that to confine the meaning of the words "regular rate" to an abstract mathematical formula was unnecessary and might seriously hinder the working of many collective-bargaining agreements.

Watchmen in Stockyard Exempt as Railway Employees. A circuit court of appeals held⁴ that watchmen employed by a stockyard were exempt from the overtime provisions of the Fair Labor Standards Act, because section 13 (b) (2) exempts employees "of an employer subject to the provisions of Part I of the Interstate Commerce Act," which relates to employees of railroads.

The stockyard occupies a large area, in which are many miles of railroad track and the pens where livestock are unloaded, weighed, fed, watered, and either delivered to consumers or loaded onto cars. While its work is divided functionally into transportation and stockyard services, the stockyard is operated as an integrated whole. Fifty watchmen police the yard, help look after the livestock, and in emergencies help in loading and unloading.

In holding that these employees were exempt, the court pointed out that the transportation services of stockyards had been held subject to jurisdiction of the Interstate Commerce Commission in a long line of United States Supreme Court decisions. The employees' work in loading and unloading livestock was clearly within the jurisdiction of the Commission.

The Administrator of the Wage and Hour Division contended that since the employees performed

¹ Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

² This section is intended merely as a digest of some recent decisions involving the Fair Labor Standards Act and the Portal-to-Portal Act. It is not to be construed and may not be relied upon as interpretation of these acts by the Administrator of the Wage and Hour Division or any agency of the Department of Labor.

³ *Bay Ridge Operating Co. v. Aaron, et al.* (U. S. Sup. Ct., June 7, 1948).

⁴ *McComb v. Union Stockyards* (U. S. C. C. A. 7, May 28, 1948).

dual functions, one of which was not under the jurisdiction of the Commission, the exemption did not apply to any of the employees. The court rejected this contention on the ground that such a test could not be used in determining whether an exemption applied.

Since the employees were within the literal language of the exemption and their duties were "intimately related to the operation as a whole," the exemption was held to be applicable.

Retail or Service Establishment. The Sixth Circuit Court of Appeals held ⁵ that warehouse and yard employees of an employer operating several retail stores were not exempt from the provisions of the Fair Labor Standards Act as employees of a retail or service establishment. The warehouse and one of the yards were next to the employer's main store and administrative offices. Some retail sales were made at this yard. The yard contained railroad sidings, cranes, and bins for bulk storage of coal and of granite, sand, cement, and other building materials. Orders accepted at one location were sometimes filled from supplies at another. About 25 percent of the employees' working time was spent in unloading and storing goods, and about 3½ percent in unloading and storing goods shipped from outside the State.

The court held that the time so spent was not so trifling as to prevent the employees from being subject to the general coverage of the act, especially since 15 percent of the employer's sales were of supplies received in interstate commerce. It also held that the employer was a merchandising institution of a hybrid retail-wholesale nature and therefore was not a retail or service establishment within the meaning of the act. Although the court recognized that the case was not precisely like that of the conventional chain-store organization, in which a single warehouse serves multiple retail stores, it deemed itself bound by the established law dealing with the latter type of situation and considered the "retail" concept inapplicable to sales that were "not essentially and inescapably retail."

Good Faith Defense. A decision ⁶ of the Eighth Circuit Court of Appeals involved interpretation

of sections 9 and 11 of the Portal-to-Portal Act of 1947. Section 9 provides that no liability or punishment may be imposed for any act or omission made in good faith in conformity with and in reliance on an "administrative regulation, order, ruling, approval, or interpretation of any agency of the United States."

The employing company, which operated a munitions plant under a cost-plus-fixed-fee contract with the War Department, employed an assistant storekeeper, who later became storekeeper. Both positions were classified by the company as executive or administrative and therefore exempt from the provisions of the act, but it was later stipulated that the duties performed by the storekeeper did not bring him within the exemption. The company claimed that it was not liable under the Fair Labor Standards Act, because it was ignorant of the duties actually performed by the storekeeper, who was one of many thousand employees. It held that the approval of pay-roll classifications by Ordnance Department inspectors constituted an "administrative regulation, order, ruling, approval, or interpretation" that the storekeeper was exempt, upon which it relied in good faith.

Assuming, but without deciding, that the Ordnance Department was an "agency of the United States," the court ruled that the mere approval of payment of a pay roll by Government auditors, who had no knowledge of the employee's duties, was not such administrative action as was meant by section 9 of the Portal Act to provide a defense to a suit under the Fair Labor Standards Act.

Section 11 of the Portal Act permits a court in its sound discretion to award no liquidated damages in an employee suit under the Fair Labor Standards Act, if the employer has proved that the act or omission complained of was in good faith and that he had reasonable grounds for believing it was not a violation. The company claimed protection under this section. The circuit court held that the district court's refusal to recognize this defense was not erroneous in view of the company's ignorance of the duties performed by its own employees. The company could not place the burden of correcting its own mistake upon uninformed officials of the Ordnance Department.

⁵ *McComb v. Wright* (U. S. C. C. A. 6, May 24, 1948).

⁶ *Day & Zimmerman v. Reid* (U. S. C. C. A. 8, May 25, 1948).

Labor Relations

Political Expenditures. The Congress of Industrial Organizations and its president had been indicted under section 304 of the Taft-Hartley Act, which makes it unlawful for a labor union "to make a contribution or expenditure in connection with" any election or primary for Federal office. The basis for the indictment was that the CIO in its weekly union publication, the CIO News, had urged its members to vote for a particular candidate for Congress. The CIO News publication expenses are paid from union funds, which are derived from membership dues, fees, assessments, etc., and the periodical is distributed to members and purchasers. The CIO challenged the constitutionality of section 304 of the act, contending that it abridged the rights of freedom of speech and the press and was arbitrary and vague. The lower court sustained this contention, but on review the United States Supreme Court⁷ refused to rule on the question of constitutionality. The Supreme Court held that section 304 of the act, forbidding expenditure of union funds in connection with Federal elections, was not intended by Congress to apply to political articles in regular union periodicals, that such publication was therefore not unlawful, and that it was unnecessary to pass upon the question of the constitutionality of section 304.

Four members of the Court concurred in the decision that the CIO had not committed an unlawful act, but disagreed with the refusal of the majority to rule upon constitutionality. These four justices were of the opinion that section 304 is clearly unconstitutional, on the ground that it restricts or abridges freedom of speech, press, and assembly.

Non-Communist Affidavits. Several recent decisions have dealt with the validity or effect of section 9 (f) of the amended National Labor Relations Act requiring labor unions to file financial and organizational data with the Secretary of Labor, and section 9 (h) requiring union officials to file non-Communist affidavits with the National Labor Relations Board. The United States Su-

preme Court sustained⁸ a lower court ruling that section 9 (f) was a constitutional exercise by Congress of its power to regulate commerce, but refused to pass on the validity of section 9 (h) holding that this was unnecessary to its decision inasmuch as the union had failed to comply with either of the requirements.

The NLRB held⁹ that a petition for certification filed by an international union would be dismissed, even though the international had complied with section 9 (h), when the international actually acted on behalf of one of its locals whose officers failed to file non-Communist affidavits. In the case ruled upon, the local took the initial step in raising a question of representation, by demanding recognition from the employer; but the international filed the petition and, in its supporting brief, stated that it was acting on behalf of the noncomplying local.

A similar result was reached by the Board in another case,¹⁰ in which the constitution of the complying international union which filed the petition contained a provision that "all contracts shall be in the name of the local union and shall be signed by the local union committee."

Decertification Proceedings. Several NLRB decisions dealt with decertification proceedings.

(1) The Board dismissed¹¹ the decertification petition on the ground that the union was not currently being recognized by the employer. It held that the employer's concern over the majority status of the union which was claiming recognition could appropriately be resolved by filing a representation petition. (2) The Board directed¹² a decertification election to determine whether a group of professional employees, theretofore included in a bargaining unit which also contained nonprofessional employees, wished to remain in such larger unit or preferred a separate bargaining unit. (3) The Board held¹³ that a supervisor, being a representative of the employer, may not file a decertification petition on behalf of a group of employees.

⁸ *National Maritime Union v. Herzog* (U. S. Sup. Ct., June 21, 1948).

⁹ *In re Lane-Wells Co.* (77 NLRB No. 168, June 4, 1948).

¹⁰ *In re U. S. Gypsum Co.* (77 NLRB No. 176, June 10, 1948).

¹¹ *In re Cronin Motor Co., Inc.* (77 NLRB No. 136, May 21, 1948).

¹² *In re Illinois Bell Telephone Co.* (77 NLRB No. —, June —, 1948).

¹³ *In re Clyde J. Merriis* (77 NLRB No. —, June —, 1948).

⁷ *United States v. Congress of Industrial Organizations* (U. S. Sup. Ct., June 21, 1948).

Union Security. Several recent NLRB decisions dealt with union security. (1) The Board held ¹⁴ that a bargaining unit consisting of a single employee is appropriate for a union-shop authorization election. (2) The Board refused ¹⁵ to hold a union-shop election during the off season in a plant that operated on a seasonal basis. The year-round staff of the plant consisted of 40 employees, but was ordinarily increased to about 400 employees during the tomato-canning season. The Board took the position that to hold a union-shop election among the 40 year-round workers would be inconsistent "with the spirit and intent of the statutory provisions of union-shop authorization elections," and that a majority of those to be bound by such agreement should authorize its negotiation, because otherwise it would permit a small group of employees to bind a much larger group. (3) A similar decision was reached in another case ¹⁶ involving an almost identical situation.

Appropriate Unit For Plant Guards. Section 9 (b) (3) of the amended National Labor Relations Act prohibits the inclusion of plant guards in a bargaining unit of employees engaged in other types of activity. A recent case ¹⁷ involved uniformed and armed guards whose duties consisted exclusively of guarding armored trucks and safety vaults, both containing valuable securities belonging to customers of the company which employed the guards. The Board held that the provisions of section 9 (b) (3) were not applicable to these guards, as the legislative history of the section clearly indicated that "Congress in imposing restrictions on guard units, was referring to persons employed to guard the 'employer's' premises and not to guard property of the employer's 'customers'."

Duty to Bargain. In April 1948, the NLRB held ¹⁸ that employer-financed pension and retirement plans come within the requirement of the National Labor Relations Act that employees and unions must bargain on wages, hours, and other conditions of employment. In a subsequent decision ¹⁹ this

principle was further extended by making it applicable to group health and accident insurance programs. For several years prior to the existence of a union, the employer had operated such a program, financed in part by employee contributions. Subsequently the employees chose a union to represent them, and the union demanded that the program be financed entirely by the employer. The employer refused, contending that a group health and accident insurance plan was not a required subject of collective bargaining. The Board denied this contention, holding that such programs were included within the statutory terms "wages, hours, and conditions of employment," concerning which there was a legal obligation to bargain.

Veterans Reemployment

Federal Government Employees. The United States Supreme Court upheld ²⁰ the validity of Civil-Service regulations granting World War II veterans absolute preference over other Federal employees, regardless of seniority or efficiency. A navy yard employee with permanent civil-service status, after 12 years of service, was told that his active service had terminated on account of a reduction in force. The employee contended that he was discharged because of civil-service regulations giving veterans preference, which he alleged were void.

The Court ruled that the Federal Government had an absolute obligation to rehire its World War II veteran employees in positions of "like seniority, status and pay." These words of paragraph (A) of section 8 (b) of the Selective Training and Service Act, it was pointed out, were unqualified, although the provisions of paragraph B exempt private employers from the duty to reemploy in cases of change of circumstances. Cases denying superseniority to veterans in private employment were distinguished for this reason. It was pointed out that section 8 (c) of the act, prohibiting the discharge of a veteran, except for "cause," within 1 year of his reemployment, should be interpreted in the light of section 8 (b) (A).

Furloughing a veteran for 1 year or more was held to amount to a discharge within the meaning of the act. The Court pointed out that otherwise the veteran would not be reemployed until after

¹⁴ *In re Universal Carloading & Distributing Co.* (77 NLRB No. —, June — 1948).

¹⁵ *In re McKeon Canning Co., Inc.* (77 NLRB No. 208, June 22, 1948).

¹⁶ *In re Winckler & Smith Citrus Products Co., Inc.* (77 NLRB No. 209, June 22, 1948).

¹⁷ *In re Brink's, Inc.* (77 NLRB No. 189, June 17, 1948).

¹⁸ *In re Inland Steel Co.* (See Monthly Labor Review, June 1948, p. 648.)

¹⁹ *In re W. W. Cross and Co.* (77 NLRB No. 188, June 17, 1948).

²⁰ *Hilton v. Sullivan* (U. S. Sup. Ct., June 1, 1948).

year from his discharge, when the employer could be under no duty to hire him. The regulation giving preference to veterans of wars other than World War II was also upheld. It was contended that section 12 of the Veterans' Preference Act of 1944 prohibited such preference, since length of service was among the considerations listed in deciding upon the retention of personnel. However, the Court pointed out that the same section gave veterans with "good" (or higher) efficiency ratings priority over all other competing employees. The length-of-service proviso was held to apply only when veterans compete with other veterans or when nonveterans compete with other nonveterans. The proviso did not apply if a veteran and a nonveteran were applying for the same job.

Right to Reinstatement. A circuit court of appeals indicated²¹ the rules to be applied in reinstatement of a veteran when there is doubt as to the position he left. Prior to induction into military service, the veteran had been employed as a sheet-metal worker's helper and had performed no other class of work for his employer. Sheet-metal worker's helper, under union-contract provisions then in effect, was a lower grade position than sheet-metal worker. The two positions were given separate seniority systems. Shortly before the veteran's induction, the union agreement was modified to provide for the position of "sheet-metal worker temporary," and the veteran received this rating. This new position, which involved no duties other than those of a helper, was merely a scheme to give helpers higher pay. The veteran was not qualified to perform the duties of a sheet-metal worker.

In applying for reinstatement, the veteran refused to accept anything less than the position of "sheet-metal worker temporary." This classification had been abolished in the meantime, and no sheet-metal worker's helpers were then employed. The employer placed the veteran on the seniority roster for helpers. Another employee, who had done sheet-metal work for less time than the veteran, was employed as a sheet-metal worker. His duties included some formerly performed by helpers. The veteran claimed he was entitled to this man's position.

The court held that the veteran had received his reemployment rights in full. The position that he left and to which he must be returned, the court stated, is determined by his contract of employment. The union agreement defining status, duties, and ratings of employees was controlling, and it indicated that the veteran's position was that of a helper. Because of his lack of qualifications and seniority, as a sheet-metal worker, he could not claim that position.

However, the court refused to uphold the employer's contention that the veteran had not filed a timely application. The employer claimed that the veteran, by applying for the wrong position and refusing to accept anything else, had failed to apply for reinstatement within the meaning of the act. The court pointed out that a veteran, because he mistakenly demands more than he is entitled to, does not necessarily lose his rights under the act.

Vacation Pay. A circuit court of appeals rejected²² a veteran's petition for vacation pay. The veteran began his employment with the company in 1941, enlisted in the Army in 1943, and upon his discharge was reinstated in his former position, on January 7, 1946. He claimed 1 week's vacation pay, which a union contract between the company and the United Steelworkers gave to those "in the employ" of the company for 26 weeks before July 1, 1946. The company claimed that the word "employ" meant only time actually worked in the plant. The district court adopted this view, and dismissed the complaint.

The Second Circuit Court of Appeals affirmed the decision of the district court, but rejected the court's view that "vacation pay * * * under the union contract is based upon actual employment in the * * * plant." The court held that section 8 (b) of the Selective Training and Service Act presupposes that a veteran "who leaves his position * * * in the employ of the employer shall not be deemed to have left his 'employ'." However, the court deemed that being in the employ of an employer did not accord the veteran a right to vacation pay under the union contract. It pointed out that, under section 8 (b), the veteran is to be restored to the "position" and not to the "employ"; thus, he is

²¹ *Boston & Maine R. R. v. David* (U. S. C. C. A. 1, May 5, 1948).

²² *Dwyer v. Crosby Company* (U. S. C. C. A. 2, April 26, 1948).

entitled only to such benefits as are "offered by the employer pursuant to established rules or practices relating to employees on furlough or leave of absence." The union contract, which constituted the established rule or practice of the employer in this case, nowhere intimated that time spent on leave of absence could be counted in computing vacation pay.

Severance Pay. The Ninth Circuit Court of Appeals held ²³ that contract provisions could deprive a veteran of the benefit of his time in military service in computing severance pay. Severance pay, under the Selective Training and Service Act, the court decided, was an "other benefit" which the employer is not required to pay to a veteran. He is merely required to afford the veteran the benefit of any rule or practice, established in this regard at the time of the veteran's induction, applicable to employees on leave or furlough. In this instance there was no evidence of any rule or practice of the employer apart from the union contract operative when the veteran was inducted. The contract provided that severance pay should be computed on the basis of length of "continuous service" with the employer, and that time on leave should not count as service. Under contract terms those who entered the armed services were on leave of absence.

The district court had ruled that the contract was invalid if interpreted so as to deprive veterans of credit for their military service equal to the credit for service at the plant. In reversing the decision of the district court, the circuit court held the contract did not discriminate against veterans, since they were treated like other employees on leave of absence. The court said that to treat veterans as on leave is to accord them precisely the status required to be granted veterans by section 8(c) of the act.

The contract further provided that upon reinstatement, the dismissal pay of veterans was to be unimpaired. The court held its decision did not cause any impairment, since the leave of absence provision had limited the benefit when the veteran was inducted.

²³ *Seattle Star v. Randolph* (U. S. C. C. A. 9, May 12, 1948).

Decisions of State Courts

Michigan—Limitations on Picketing. A Michigan statute makes it unlawful to seek to compel anyone to become a member of a union or to refrain from engaging in employment. A union picketed an employer who refused to sign a closed shop agreement because none of his employees wished to join the union. The employer sought an injunction against the picketing, which the court granted ²⁴ on the ground that the object of the picketing was unlawful as it sought to force the employer to compel his employees to become members of a union they did not wish to join, and hence, in effect, sought to compel him to violate the statute.

In another case ²⁵ decided on the same date, the employees of an enterprise unanimously refused to join a union when asked to do so during the union's organizational drive. Thereupon the union picketed the enterprise, carrying signs which stated that the company was unfair to organized labor. The employer, who suffered economic loss from the picketing, sought to have it enjoined. The union contended that its picketing was constitutionally protected as an exercise of the right of free speech. The court held that such protection existed only when the object of the picketing was lawful, and that in this case it was for an unlawful objective, to force the employer to compel his employees to join the union, and hence should be enjoined. In reaching that conclusion, the court pointed out that the amended National Labor Relations Act guarantees employees the right to refrain from joining any union, and makes it an unfair labor practice for any employer to interfere with such right.

New Hampshire—Union Security. The highest court of New Hampshire dealt with a conflict between the provisions concerning union security agreements in the Taft-Hartley Act and in a State statute. ²⁶ The State statute did not forbid union security agreements, but its limitations were more restricted and narrower than those of the Taft-Hartley Act. An employer in interstate commerce

²⁴ *Consumers Co. v. Kalamazoo Building Council* (Mich. Sup. Ct., May 18, 1948).

²⁵ *Standard Grocer Co. v. Local No. 408, AFL* (Mich. Sup. Ct., May 18, 1948).

²⁶ *Teamsters Union v. Riley*, (N. H. Sup. Ct. June 1, 1948).

and a union entered into a union-shop agreement which complied with the Taft-Hartley Act's requirements but violated the provisions of the State law. The court held that the agreement was lawful because the Taft-Hartley Act superseded the State statute when interstate commerce was involved. It pointed out that the provision of the Taft-Hartley Act which gives effect to local prohibitions of union security plans applies only when such arrangements are completely forbidden and not when they are merely regulated.

New York—Breach of No-Strike Clause. The New York State Labor Relations Act makes it an unfair labor practice for an employer to interfere with the right of his employees to self-organization. A union called a strike in violation of the no-strike clause in its collective agreement. The employer thereupon issued a circular letter to his employees stating that all employees who remained on the job would receive 3 days' pay for each day worked during the strike. The State Labor Board held that this offer by the employer constituted the unfair labor practice of interfering with his employees' right to self-organization. The court reversed²⁷ the board, ruling that the offer of extra compensation to nonstrikers was a lawful counter-

measure taken by the employer against breach of the collective agreement on the part of the union.

Tennessee—Picketing and Free Speech. A union's efforts to unionize the employees of an enterprise resulted in unanimous refusal by the employees to join. The union thereupon picketed the employer, carrying signs declaring that the company was unfair to the union. The employer sought to enjoin the picketing. The court refused²⁸ to grant the injunction, holding that the peaceful picketing of an employer who does not employ union labor and whose employees refuse to join the union is an exercise of the constitutional right of free speech.

Virginia—Closed Shop. A lower Virginia court sustained²⁹ the constitutionality of the State anti-closed-shop act known as the Right-to-Work Act. This statute makes unlawful all forms of union security arrangements. It was attacked as unconstitutional—arbitrarily and unreasonably impairing the right of unions and employers to contract freely and denying union members the equal protection of the law. The court overruled these contentions and sustained the statute as a proper exercise of the State's police power.

²⁷ *Macy & Co. v. N. Y. Labor Board* (N. Y. Sup. Ct., New York County, June 17, 1948).

²⁸ *Watson Co. v. Wilson* (Tenn. Sup. Ct., May 3, 1948).

²⁹ *Hawkins v. Finney* (Va. Circuit Court, May 1, 1948).

Chronology of Recent Labor Events

June 10, 1948

SECRETARY OF LABOR LEWIS B. SCHWELLENBACH died; he had been a member of the Cabinet since July 1, 1945. On July 2, the President accepted the resignation of David A. Morse as Acting Secretary and Under Secretary of Labor, effective August 2; thereupon John W. Gibson, Assistant Secretary, became Acting Secretary of Labor.

June 19

THE PRESIDENT, by Executive Order 9969, suspended (for 5 months) the 8-hour law as it applies to laborers and mechanics employed by the Alaska Railroad (U. S. Department of the Interior) on public works within the Territory. (Source: Federal Register, Vol. 13, p. 3333.)

On July 1, the President, by Executive Order 9974, extended suspension of the 8-hour law for laborers and mechanics employed by the Departments of the Army and the Air Force, from July 1, 1948, to July 1, 1949. (Source: Federal Register, Vol. 13, p. 3689.)

THE PRESIDENT APPOINTED George Meany (AFL), James B. Carey (CIO), and A. E. Lyon (Railway Labor Executives Association), as labor members of a 12-member Public Advisory Board to assist the Economic Cooperation Administrator. (Source: Public Law 472, 80th Cong., and daily press.)

THE ADMINISTRATOR of the Wage and Hour Division, United States Department of Labor, announced a minimum hourly wage of 40 cents (formerly 35 cents) for the sugar manufacturing industry and of 37½ cents (formerly 35 cents) for the pearl button industry in Puerto Rico, effective July 19, 1948. (Source: Federal Register, Vol. 13, p. 3317.)

On July 2, The Administrator announced new minimum hourly wage rates of 35 cents (formerly 20 cents) in the railway express and property motor transport division, and of 25 cents (formerly 20 cents) in the railroad division, of the transport industry in Puerto Rico, effective August 2, 1948. (Source: Federal Register, Vol. 13, p. 3694.)

THE NLRB HELD (4 to 1) in the case of W. W. Cross and Co., East Jaffrey, N. H., and the United Steelworkers of America (CIO), that an employer, by the terms of the LMRA of 1947, must bargain with the representative of his employees on any group health and accident insurance program covering them, provided the union complied with the filing requirements. (Source: NLRB release R-97, June 20, 1948.)

June 21

THE UNITED STATES SUPREME COURT unanimously dismissed the indictment against the CIO and its president,

in the case of *United States v. Congress of Industrial Organizations* (see Chron. items for Feb. 11, 1948, in MLR, Mar. 1948, and for Mar. 15, 1948, MLR, Apr. 1948). They had been charged with violating the ban, under the LMRA of 1947, against union expenditures in connection with Federal elections. The Court, however, refused (5 to 4) to pass upon the constitutionality of the disputed section (304). (Source: U. S. Law Week, 16 LW, p. 4662; for further discussion, see p. 167 of this issue.)

The Court, in the case of the *National Maritime Union of America (CIO) v. Herzog* (see Chron. item for April 13, 1948, MLR, May 1948), upheld (7 to 2) sections 9 (f) and (g) of the LMRA of 1947 which require unions to register and file financial statements with the Secretary of Labor; but declined to reconsider a lower court decision sustaining the constitutionality of section 9 (h) on non-Communist affidavits (Source: Labor Relations Reporter, Extra Edition Bulletin, Vol. 22, No. 15, p. 21.)

June 23

THE PRESIDENT APPROVED amendments (1) to the Railroad Retirement Act of 1937, as amended, providing for a 20-percent increase in pensions and annuities which will affect about 200,000 retired workers, and (2) to the Railroad Unemployment Insurance Act, as amended, reducing the rate of pay-roll tax, paid by the railroads, according to a sliding scale which depends upon the balance in the fund. (Source: Public Law 744, 80th Cong.)

June 24

THE PRESIDENT APPROVED the Selective Service Act of 1948, requiring military service of men 19 to 25 years of age. Reemployment rights are defined. The Secretary of Labor, through the Bureau of Veterans' Reemployment Rights, has the duty of aiding replacement in employment. (Source: Public Law 759, 80th Cong.)

June 25

THE UNITED MINE WORKERS OF AMERICA (Ind.) and the commercial soft-coal operators signed a 1-year agreement, effective July 1, 1948, providing for a \$1 a day wage increase, 20 cents a ton for the welfare and retirement fund, and continuation of the union shop. (Source: United Mine Workers Journal, July 1, 1948, pp. 3, 13.) On June 22, a Federal District Court upheld the disputed UMW pension plan. (Source: Labor Relations Reporter, 22 LRRM, p. 2332.)

On July 3, the UMW and the anthracite operators signed an agreement, effective July 16, with similar terms. (Source: United Mine Workers Journal, July 15, 1948, p. 4.)

On July 13, the "captive" mine owners and the UMW, after a strike on July 6 of 40,000 captive and 45,000 sympathizing miners, signed a contract with the same terms, but provided for final court determination of union-shop "legality" for the "noncomplying" union under LMRA, through complaint filed with NLRB on July 2.

For further discussion, see Labor-Management Disputes in July 1948, p. 151 of this issue.

THE PRESIDENT SIGNED the Displaced Persons Act of 1948, authorizing the admission of some 200,000 "eligible" displaced persons within the next 2 years and creating a commission to administer the act. Within the framework of selection prescribed for entry, priority is to be given agricultural, household, construction, clothing, and garment workers. Prior assurances of suitable employment and "safe and sanitary" housing—in both cases without displacing others—are among prerequisites of admission. (Source: Public Law 774, 80th Cong.)

SETTLEMENT of the 3-month Chicago, North Shore, & Milwaukee Railway strike brought a 15½ cent hourly wage increase (retroactive to December 1, 1947) to three AFL rail unions which called the strike (railway clerks, telegraphers, and dining-car employees), and four other unions. (Source: Labor, July 3, 1948, p. 2.)

June 26

THE NLRB RULED UNANIMOUSLY, in a case involving Local 13076 of District 50, United Mine Workers of America (Ind.), and Clyde J. Merris, truck-fleet operator, Canon City, Colo., that a supervisor may not act in behalf of a group of employees, by seeking an election to decertify a union as bargaining representative. (Source: NLRB release, R-99, June 26, 1948.)

June 29

A FEDERAL STATUTORY COURT in New York City upheld, 3 to 1, the non-Communist requirement (section 9-h) of the LMRA of 1947 as valid in a case involving Local 65 of the Retail, Wholesale, and Department Store Union (CIO). The union had challenged the right of the NLRB to exclude it from the ballot in a representation election at a warehouse of the F. W. Woolworth Co. Its appeal from the court's decision to Justice Jackson of the U. S. Supreme Court to stay the election was denied. (Source: Labor Relations Reporter, 22 LRR, p. 146.)

July 1

THE UNITED STATES EMPLOYMENT SERVICE and its functions were transferred permanently from the Department of Labor to the Federal Security Agency, job placement activities becoming a function of the Bureau of Employment Security of the Social Security Administration. (Source: Public Law 646, 80th Cong., and Congressional Record, June 15, 1948, p. 8481.)

July 2

THE FEDERAL DISTRICT COURT in Washington, at the Government's request, made permanent its temporary anti-strike injunction (see Chron. item for June 10, 1948, MLR, July 1948) against the three "operating" brotherhoods of engineers, firemen, and switchmen. (Source: Labor Relations Reporter, 22 LRRM, p. 2267.)

On July 8, the White House announced that agreement had been reached between the unions and the railroads.

The unions accepted (for 125,000 workers) the 15½ cent hourly wage increase (retroactive to November 1, 1947) and some rule changes (effective January 1, 1948) which will yield increased pay. (Source: White House release, July 8, 1948.)

On July 9, the railroads seized by the Government 2 months previously to avert a strike (see Chron. item for May 10, 1948, MLR, June 1948) were returned to their owners. (Source: Labor, July 17, 1948, p. 1.)

July 3

THE PRESIDENT SIGNED the Postal Rate Revision and Federal Employees Salary Act of 1948, which provides for a permanent annual salary increase of \$450 for postal workers and of \$330 for Federal classified employees. Certain other categories of increases were also provided for. (Source: Public Law 900, 80th Cong.)

July 9

THE FEDERAL DISTRICT COURT in Salt Lake City, Utah, held that NLRB has sole and exclusive jurisdiction to certify collective bargaining agents for employees of firms engaged in interstate commerce, and issued an order temporarily restraining the Utah State Labor Relations Board from certifying the United Steelworkers of America (CIO) as bargaining representative in the steel plant of the Kaiser-Frazer Parts Corp. at Ironton after the State agency had conducted a representation election. Because of the Steelworkers' national president's refusal to sign the non-Communist affidavit required under the LMRA of 1947, the union was ineligible to seek an NLRB election. (Source: Labor Relations Reporter, 22 LRRM, p. 2294.)

THE NLRB ANNOUNCED that on June 30, 167 national unions and 7,917 local unions were in full compliance with the non-Communist affidavit requirements (see Chron. item for Oct. 7, 1947, MLR, Jan. 1948) of the LMRA of 1947. (Source: NLRB release R-103, July 9, 1948.)

July 10

THE 31ST SESSION of the International Labor Conference, which convened in San Francisco on June 17 with representatives of some 50 member nations attending, adjourned. Delegates from the United States were David A. Morse (Under Secretary of Labor) and Senator Elbert D. Thomas, representing the Government; J. David Zellerbach, representing employers, and Frank P. Fenton (AFL) representing labor. (Source: White House release, June 4, 1948; for further details, see article in September 1948 issue of MLR.)

On June 12, Mr. Morse was elected Director General to succeed Edward J. Phelan (of Eire), who is retiring. (Source: U. S. Department of Labor release, June 21, 1948.)

On June 30, the President approved an act providing for United States acceptance of an amendment to the ILO constitution. (Source: Public Law 843, 80th Cong.)

Publications of Labor Interest

Special Reviews

Education for an Industrial Age. By Alfred Kähler and Ernest Hamburger. Ithaca, N. Y., Cornell University Press, 1948. 334 pp. \$3.75.

The question of maintaining an adequate supply of trained workers is of particular importance in a period when the demand for labor is strong and sustained. The authors of this study direct their attention to the entire subject of education and training for the skilled and semi-skilled industrial occupations, as well as for the so-called vocational-technical occupations which recently have received considerable attention from educators.

Against a background of the history of general and vocational education and the major occupational trends in the United States, the study describes the status of three main areas of vocational preparation—school, apprenticeship, and informal on-the-job training. The institutional arrangements in the United States can be seen in clearer perspective by comparison with those in four highly-industrialized European countries, which are described in the appendixes.

Coming out at a time when there is considerable public discussion, and even some soul-searching, concerning the aims and methods of vocational education, this study arrives at some provocative conclusions and recommendations. Few educators would oppose the improvement of the general-education content of vocational high school curricula, although many would argue against augmenting this area of study at the expense of the vocational courses. On raising the standards of instruction, there would also be wide agreement. There is likely to be less general agreement, however, with the conclusion which casts doubt on the efficacy of technical institutes of post high school grade—a type of institution in which there is much interest. In this connection, the authors feel that there is a time limit after which practical preparation for a job cannot be carried on efficiently at the school level. They suggest the expansion of apprenticeship and the less formal systematic training programs in industry, and emphasize in this connection that young workers should continue part-time school or extension training during and after apprenticeship. A final recommendation which will be of general interest is that there should be an organized

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

transition from school to industry, arranged with the cooperation of schools, management, and organized labor working through a system of advisory boards.—H. C.

Personnel and Industrial Psychology. By Edwin E. Ghiselli and Clarence W. Brown. New York: McGraw-Hill Book Co., Inc., 1948. 475 pp., bibliographies, charts. \$4.50.

The professional psychologist's appraisal of established personnel and industrial engineering doctrine is as detached as scrutiny by a man from Mars. Psychological assumptions underlie most important personnel and industrial relations procedures, of course, but Ghiselli and Brown's critical examination points to the inconclusiveness or the absence of the evidence upon which many accepted routines rest. The broad scope of the inquiry—the sketchiness of which in spots is largely determined by its textbook character—embraces such diverse fields as time and motion study, placement, training, and rating of workers, accidents, fatigue, monotony, and worker motivation and morale.

The authors' quarrel with the use of time and motion study to achieve economy of worker effort, for example, is that current practice has hardly advanced past a standardized application of the physical sciences and ignores long-standing psychological findings on individual differences. Their disagreement with industrial handling of the fatigue problem is based on the failure of industrial engineers to differentiate the several kinds of fatigue known to psychologists and thereupon to strike directly at the different roots of each.

In the authors' judgment, the foundations of modern industrial personnel practice are weakened by the development of the field by persons untrained in the sciences of human behavior; as a consequence, the total contribution of science applied to the human phase of industry falls far short of its achievements on the mechanical and physical side. The writers further advance the thesis that the application of science to the worker has been, on the whole, a one-sided affair, designed to induce him to accept improved operation in his role as a quasi-machine rather than to develop or discover his productive capacities as a human being.

In common with other students of labor problems today, the authors emphasize the study of worker attitudes and motivations in their full complexity. Alteration of existing personnel and industrial relations practices to yield greater individual worker satisfaction, it is held, will also benefit employers. Achievement of progress in this direction will result from the further contributions of psychology and other scientific disciplines through laboratory and plant research that is unfettered by allegiances.—P. A.

Cooperative Movement

The Law of the Organization and Operation of Cooperatives. By Israel Packel. Albany, N. Y., Matthew Bender & Co., 1947. 389 pp. 2d ed. \$7.50.

Revision of an earlier (1940) edition, incorporating many additional court decisions affecting cooperative and a considerable expansion in the discussion of taxation of the associations.

Farmers' Cooperatives in Our Community. By A. W. McKay. Washington, U. S. Department of Agriculture, Farm Credit Administration, Cooperative Research and Service Division, 1948. 41 pp., illus.; processed. (Miscellaneous Report No. 118.)

Although prepared especially for young farmers and the young people now in school who plan some day to own and operate a farm, this publication contains much material of interest to groups planning to start a consumers' cooperative.

Report on Audit of the Tennessee Valley Associated Cooperatives, Inc., for Fiscal Year Ended June 30, 1947, and for Period to July 30, 1947. Washington, 1948. 18 pp. (H. Doc. No. 515, 80th Cong., 2d Sess.) 10 cents, Superintendent of Documents, Washington.

Tennessee Valley Associated Cooperatives, Inc., was organized in 1934 to administer a relief grant of \$300,000 to be used in improving the economic welfare of the lower-income families in the Tennessee Valley. Most of its efforts were directed toward the establishment and successful operation of three cooperative canneries, which, however, ceased operation before the period of the above report. The report gives financial statistics for these and the TVAC, the last-named having been directed by Congress in 1947 to liquidate. Some data are also given on Southern Highlanders, Inc., an association formed to sell and retail the products of mountaineer home industry.

Annual Report on the Working of Cooperative Societies in the Malayan Union for the Period April 1, 1946, to December 31, 1946. By J. G. Crawford, Director of Cooperation. Kuala Lumpur, Government Press, 1948. 25 pp. 2s.4d.

Prior to the Japanese invasion in December 1941, cooperatives had existed in most of the Malay States. During the occupation, which lasted until August 1945, most of the associations were dormant, and the records of many were destroyed. Upon reoccupation by the British forces, the military administration undertook reorganization and activation of the cooperative movement. The present report gives a general description of the situation of the various types of associations—credit, fisherman's, buffalo-breeding, and general-purpose cooperatives.

Cost and Standards of Living

Budget For an Elderly Couple. Washington, Federal Security Agency, Social Security Administration, Bureau of Research and Statistics, 1948. 38 pp.; processed. (Bureau Memorandum No. 67.)

Trends in the Per Capita Consumption of Foods in the United States Since 1920. By John L. Fulmer. (In Southern Economic Journal, Chapel Hill, N. C., April 1948, pp. 404-410. \$1.)

Cost of Living Indexes and Budget Studies in Wage Adjustments. Princeton, N. J., Princeton University, Industrial Relations Section, July 1948. 4 pp. (Selected References, No. 22.) 10 cents.

The Living Standard of the Soviet Worker, 1928, 1938, 1948.

By Solomon M. Schwarz. (In Modern Review, New York, June 1948, pp. 272-286. 75 cents.)

Analytical discussion of prices and of workers' earnings from 1928 to 1948. The author concludes that real wages on the average declined about 50 percent during this period, and he discusses the effect of this decline on the workers and their families.

Economic and Social Problems

Principles of Economics. By Frederic Benham and Francis M. Boddy. New York and Chicago, Pitman Publishing Corporation, 1947. 430 pp., bibliographies, diagrams. \$3.50.

This text for a one-semester introductory course in economics follows the pattern of many recent economic texts in that it combines essentially an institutional approach with a general coverage of the main outlines of economic theory. Topics of current interest, as well as a number of subjects frequently neglected in introductory texts, are included.

European Recovery Program: Report of the International Trade-Union Conference, London, March 9 and 10, 1948. [London], Trades Union Congress, [1948]. 48 pp. 1s.

The conference is discussed in an article in this issue of the Monthly Labor Review (p. 147).

Manpower Conference, Rome, January-February 1948, [Held Under Auspices of Committee of European Economic Co-operation]. London, H. M. Stationery Office, 1948. 56 pp. 1s. net.

A brief account of this conference was published in the Monthly Labor Review for April 1948 (p. 404).

China's Economic Stabilization and Reconstruction. By D. K. Lieu. New Brunswick, N. J., Rutgers University Press, 1948. 159 pp. \$3.

The author sets forth the main problems of economic reconstruction which China is facing, considers objectives to be attained, and appraises measures, both tried and suggested, for dealing with various aspects of the situation.

Report of the Native Laws Commission, [Union of South Africa], 1946-48. Pretoria, Department of Native Affairs, 1948. 84 pp.

Report of the commission appointed to inquire into the operation of the laws in force in the Union relating to natives in or near urban areas; the native pass laws; and the employment in mines and other industries of migratory labor.

Meet the Miner. By E. R. Manley. Lofthouse (Nr. Wakefield), England, The Author, 1947. 120 pp., illus. 6s. 6d.

A study of the Yorkshire miner at work, at home, in trade-unions, and in politics.

Education and Training

Apprentice Training—Key to Productivity in Construction. Washington, Chamber of Commerce of the United

States, Construction and Civic Development Department, 1948. 22 pp. 5 cents.

Guidance Testing. By Clifford P. Froehlich and Arthur L. Benson. Chicago, Science Research Associates, 1948. 104 pp., charts. \$1.

Designed for the use of persons conducting guidance programs in which tests of various kinds are employed.

Vocational Guidance in Sweden. By Ejnar Neymark. (In *International Labor Review*, Geneva, May 1948, pp. 438-455. 50 cents. Distributed in United States by Washington Branch of ILO.)

Fifth in a series of studies of vocational guidance, a subject on the agenda of the International Labor Conference in San Francisco, June-July 1948. Previous articles in the series dealt with vocational guidance in Belgium, Great Britain (for juveniles), New Zealand, and the United States.

Employment and Labor Turn-Over

Fair Practice in Employment. By Frances K. Chalmers and Dorothy I. Height. (In *Public Affairs News Service*, Woman's Press, New York, April 1948; 34 pp., charts. 40 cents.)

Describes briefly the work of the U. S. Fair Employment Practices Committee, which was in existence from 1941 to 1946, attempts to obtain a permanent organization of the same character, and State and local measures against discriminatory practices.

Tables Relating to Employment and Unemployment in Great Britain, 1947—Regional and Industrial Analysis for Persons Insured Against Unemployment. London, Ministry of Labor and National Service, 1948. 16 pp. 2s. net, H. M. Stationery Office, London.

Recording and Analyzing Labor Turnover in Industry. [Melbourne], Australia, Department of Labor and National Service, Industrial Welfare Division, 1947. 28 pp. (Leaflet No. 15.)

Housing

Homes for America. By Charles T. Stewart. Washington, National Association of Real Estate Boards, Realtors' Washington Committee, 1948. 71 pp.

Review of the housing situation, covering the factual background and current thinking, experimentation, and accomplishment.

Housing the American Family. By Paul Meadows. (In *Journal of Business of the University of Chicago*, April 1948, pp. 80-91. \$1.50.)

Calls the business of housing American families a failure, and states that the national policy in this field should be centered in the provision of adequate family shelter and should be accompanied by a study of the reasons for past failures.

Housing in the Netherlands and Relevant Acts and Regulations from 1900 onward. The Hague, Ministry of Reconstruction and Housing, 1948. 24 pp.

Some Facts about Housing and Town Planning in Netherlands. The Hague, Ministry of Reconstruction and Housing, 1947. 23 pp., maps, charts, planillus.

Industrial Accidents and Their Compensation

Disability Evaluation: Principles of Treatment of Compensable Injuries. By Earl D. McBride, M.D. Philadelphia, J. B. Lippincott Co., 1948. 667 pp., inserts, bibliography, illus. 4th ed., rev. \$12.

In this edition, as in the previous volumes, the author has attempted to interpret the physiological and mechanical alterations resulting from injury to the motor structure of the human body, and to appraise and evaluate the extent of functional loss as it relates to the economic capacity of the injured, with particular reference to workmen's compensation. Specific physical disabilities and injuries are discussed in detail. The principal material is a chapter on employment of the physically handicapped, including a list of appropriate jobs, consisting primarily of data of the U. S. Civil Service Commission.

Bibliography of Bureau of Mines Publications Dealing with Health and Safety in the Mineral and Allied Industries, 1910-46. By Sara J. Davenport. Washington, U. S. Department of the Interior, Bureau of Mines, 1948. 154 pp. (Technical Paper No. 705.) 30 cents. Superintendent of Documents, Washington.

Coal-Mine Explosions and Coal- and Metal-Mine Fires in the United States During the Fiscal Year Ended June 30, 1947. By D. Harrington, W. J. Fene, H. Humphrey. Washington, U. S. Department of the Interior, Bureau of Mines, 1948. 21 pp., chart; processed. (Information Circular No. 7456.)

Digest of the Three Joint Labor-Management Safety Conferences Held During 1946 by the Pulp and Paper Industry, Washington, Oregon, California. Washington, U. S. Department of Labor, Bureau of Labor Standards, 1948. 22 pp. Free.

Proposed General Industry Safety Orders. San Francisco and Los Angeles, California Department of Industrial Relations, Division of Industrial Safety, 1948. 193 pp., diagrams.

Estadística de los Accidentes del Trabajo, [Dominican Republic], 1945. Ciudad Trujillo, Dirección General Estadística, 1948. 47 pp., charts; processed.

Industrial Hygiene

Industrial Health and Hygiene—Review 1947. By H. H. Steinberg, M.D. (In *Industrial Medicine*, Chicago, April 1948, pp. 105-115, bibliography. 5 cents.)

Summarizes recent studies and plant experiences in a variety of fields.

Introduction to Industrial Medicine. Edited by T. L. Hazlett. Chicago, Industrial Medicine Publishers.

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Co., 1947. 260 pp., bibliography, charts, forms, illus.
Lectures (the majority by physicians) given in a course in industrial medicine at the School of Medicine, University of Pittsburgh.

Occupational Medicine and Industrial Hygiene. By Rutherford T. Johnstone, M.D. St. Louis, Mo., C. V. Mosby Co., 1948. 604 pp., bibliographies, illus. \$10.
Part I considers the industrial physician's function and training, the need for basic diagnostic procedures, and workmen's compensation. The greater part of the book deals with the various toxic substances encountered in occupational exposures, clinical aspects of hazards, major diseases found in industry, and treatment of the worker. Chapters are included on special industrial processes and industrial hygiene.

Fatigue and Impairment in Man. By S. Howard Bartley and Eloise Chute. New York, McGraw Hill Book Co., Inc., 1947. 429 pp., diagrams. \$5.50.
Several chapters cover fatigue in industry.

Chicago-Cook County Health Survey: Report on Industrial Hygiene and Health. By U. S. Public Health Service. Chicago, Ill., Chicago-Cook County Health Survey, 1947. 116 pp.; processed.

The New Jersey Industrial Nurses' Survey of 1947. By Agnes E. M. Anderson. Trenton, N. J., State Department of Health, Health Education Division, 1947. 8 pp.

Shows the number, educational qualifications, and length of experience of over 500 nurses rendering nursing or first-aid services, as well as number of employees to whom these services were available.

Industrial Relations

Constructive Labor Relations. By Richard A. Lester and Edward A. Robie. Princeton, N. J., Princeton University, Industrial Relations Section, 1948. 115 pp. \$2.

A study of the experience of four New Jersey companies, each employing over 1,000 persons. The firms selected were considered to be diversified in terms of union, industry, and company characteristics; both labor and management possessed real bargaining strength; both parties agreed that relationships had reached a fairly satisfactory stage; and union-management experience had been long enough to permit step-by-step study of development and change, especially the evolution from less to more satisfactory relations. Conclusions are drawn from each of the four cases and a summary of general observations for all cases is included.

New Patterns of Employee Relations. New York, American Management Association, 1948. 50 pp. (Personnel Series, No. 117.)

Five papers presented at Mid-Winter Personnel Conference of the AMA in February 1948: Employee relations and top management planning; World labor trends—their significance to American industrial relations; What labor expects of management; The research approach to training; The role of the industrial physician.

Developments Under Labor-Management Relations Act. (In N. A. M. Law Digest, National Association of Manufacturers, Law Department, Washington, March 1948, pp. 15-26, bibliography.)

Evidence of Unfair Labor Practices Under the Taft-Hartley Act. By Thomas F. Green, Jr. (In North Carolina Law Review, Chapel Hill, April 1948, pp. 253-273. 80 cents.)

Section 10 of the Labor Management Relations Act, covering problems of evidence in the prevention of unfair labor practices, is examined in the light of what was believed to be the intent of Congress in its provisions.

The Taft-Hartley Act and State Jurisdiction Over Labor Relations. By Russell A. Smith. (In Michigan Law Review, Ann Arbor, March 1948, pp. 593-624. \$1.)

After consideration of the extremely complicated problems of federalism that exist under the Taft-Hartley Act, the author concluded that the exact extent of State jurisdiction in management-union relations depends upon "the tools selected by those empowered to make the measurements."

Industrial Relations Glossary. Minneapolis, University of Minnesota, Industrial Relations Center, 1948. 16 pp. (Bull. No. 6.) 75 cents.

A Short Course in Human Relations. By F. C. Minaker. Chicago, Dartnell Corporation, 1948. 49 pp.

Some International Aspects of the Strike Movement. By K. Forchheimer. (In Bulletin of the Oxford University Institute of Statistics, Oxford, England, January 1948, pp. 9-18; appendix, pp. 18-24, charts. 2s. 6d.)

Points out the most important similarities and some of the differences in the general structure and development of national strike movements. The appendix shows changes in frequency and severity of strikes in six countries in 1940 and earlier years, in some cases back to 1893; charts indicate trends from 1880 to 1940.

Strikes and Lockouts in Canada During 1947, with Information for Certain Other Countries. Ottawa, Department of Labor, 1948. 37 pp., charts. (Supplement to Labor Gazette, April 1948.)

Industrial Disputes [in Great Britain] in 1947. (In Ministry of Labor Gazette, London, May 1948, pp. 163, 164. 6d. net, H. M. Stationery Office, London.)

Labor Legislation and Court Decisions

The Federal Courts. (In Law and Contemporary Problems, Vol. 13, No. 1, Durham, N. C., Winter 1948, pp. 1-243. \$1.)

Collection of articles by various writers. One of them deals with the jurisdiction of Federal courts in labor disputes.

State Labor Laws in the National Field. (In Harvard Law Review, Cambridge, Mass., May 1948, pp. 840-850. \$1.)

Examination of the problem of State labor regulation as affected by the Taft-Hartley law.

The Taft-Hartley Act. By Gerhard P. Van Arkel. (In *Social Action*, New York, April 15, 1948, pp. 4-25. 15 cents.)

The writer analyzes the terms of the Taft-Hartley Act and concludes that a joint code for labor relations should be adopted by industry and labor and enacted into law. He states that neither the Wagner Act, imposed on industry, nor the Taft-Hartley Act, imposed on labor, has pointed the way to successful governmental intervention in labor problems.

What the Labor Management Relations Act Means to You. Deep River, Conn., National Foremen's Institute, Inc., 1948. 22 pp.

Employer and employee rights and obligations under the Labor Management Relations [Taft-Hartley] Act of 1947 are compared with those existing under the National Labor Relations Act of 1935. Union rights and obligations under the new law are also outlined.

The Portal to Portal Act of 1947. By Jeter S. Ray. (In *Tennessee Law Review*, Knoxville, February 1948, pp. 151-168. \$1.)

Labor Legislation in New York State, 1943-47. New York, Department of Labor, Division of Research and Statistics, 1948. 13 pp.; processed. (Special Labor News Memorandum No. 10.)

Předpisy o Práci v Soudobých Ústavách. By A. Svolos. Prague, Ministerstvo Sociální Péče, 1947. 127 pp. 75 crowns.

Discusses labor provisions in the constitutions of various countries.

*Codigo del Trabajo, sus Reformas y Jurisprudencia, Ley y Reglamento de Cooperativas * * ** [Ecuador]. Quito, Ministerio de Previsión Social y Trabajo, 1947. 340 pp.

La Loi du Travail et ses Règlements, [Iran]. [Teheran?], Ministère du Travail, Service de l'Information Extérieure, [1947?]. In French and Persian; French, 32 pp.

Text of the labor law put into effect by a decree of the Iranian Council of Ministers in May 1946, and regulations implementing the law.

Labor Organizations and Activities

List of American Trade Union Journals and Labor Papers Currently Received by the Department of Labor Library. Washington, U. S. Department of Labor, Library, 1948. 57 pp.; processed. Rev. ed. Free.

Accounting Methods for Local Unions. By Robert H. Sexton and Herbert G. Heneman, Jr. Minneapolis, University of Minnesota, Industrial Relations Center, 1948. 75 pp., forms; processed. (Technical Report Series, No. 1.)

The accounting procedures described are limited to a simple form of single-entry bookkeeping.

The Constitutional Power of the Chief Officer in American Labor Unions. By Philip Taft. (In *Quarterly Journal of Economics*, Cambridge, Mass., May 1948, pp. 459-471. \$1.25.)

Based on an examination of constitutions of 115 AFL, CIO, and independent unions.

The Income Goals of Unionism. By Charles E. Lindblom. (In *Southern Economic Journal*, Chapel Hill, N. C., April 1948, pp. 420-432. \$1.)

Discussion of union attitudes and actions designed to throw light on the question "Is there any limit to the demands of labor as to wages?"

Proceedings of Seventh Annual Convention of Canadian Congress of Labor, Toronto, Ontario, October 6-13, 1947. Ottawa, Canadian Congress of Labor, [1948?]. 134 pp.

Fifty-Third Annual Report of the Irish Trade Union Congress, being the Report of the National Executive for 1946-47 and the Report of the Proceedings of the Fifth Third Annual Meeting, Waterford, July 29-31, 1947. Dublin, National Executive of the Irish Trade Union Congress, 1947. 229 pp.

Trade Unions in Poland. New York, Polish Research and Information Service, 1947. 14 pp.; processed.

Description of history, structure, membership, and activities of the trade-union movement in Poland.

Migration

The Immigration Problem. Compiled by Clarence A. Peters. New York, H. W. Wilson Co., 1948. 254 pp. bibliography. (Reference Shelf, Vol. 19, No. 7. \$1.25.)

Brings together statements which outline the immigration problem in the United States and analyze the present immigration policy and various proposed modifications. A number of the selections deal with Europe's displaced persons.

Trends in Interstate Migration Among the Aged. By Jacob Fisher. (In *Social Security Bulletin*, Federal Security Agency, Social Security Administration, Washington, March 1948, pp. 2-12, maps. 20 cents, Superintendent of Documents, Washington.)

The Effect of Immigration in Relieving Labor Shortages [in Canada] During 1947. (In *Labor Gazette*, Department of Labor, Ottawa, March 1948, pp. 147-153, charts.)

Although the total number of workers migrating to Canada during 1947 was relatively small in relation to the total labor force, immigration was an important factor in meeting demands for labor in agriculture and logging. Immigration had little effect on labor shortages in other industries studied in the article.

Occupations

Occupations: Professions, and Job Descriptions. Washington, Superintendent of Documents, May 1948. 8 pp. (Price List 33A—1st ed.)

The Armed Forces As a Career. By North Callahan. New York, McGraw-Hill Book Co., Inc., Whittlesey House, 1947. xvii, 334 pp. \$3.

A former lieutenant colonel in the U. S. Army describes career opportunities in the several branches of the armed services.

Establishing and Operating a Flower Shop. By James P. Emerson. Washington, U. S. Department of Commerce, Office of Small Business, 1948. 47 pp., bibliography, illus. (Industrial (Small Business) Series, No. 79.) 15 cents, Superintendent of Documents, Washington.

Handbook for Career Counselors on the Profession of Nursing. New York, National League of Nursing Education, 1948. 31 pp., bibliography.

People Are Our Business. By Beryl Williams. New York and Philadelphia, J. B. Lippincott Co., 1947. 180 pp. \$2.50.

Career stories of 10 men and women who work in fields dealing with people.

Personnel Management

Personnel Psychology, A Journal of Applied Research, Vol. 1, No. 1. Washington (1727 Harvard Street NW.), Spring 1948. 129 pp. \$6 per volume, \$2 per copy.

Survey of Personnel Practices in Unionized Offices. New York, American Management Association, 1948. 38 pp. (Research Report No. 13.) \$1.50.

Report on the frequency of principal provisions in a representative sample of 50 union contracts covering office employees of manufacturing and nonmanufacturing firms.

College Graduates in Industry—Recruiting, Selecting, Training. By Stephen Habbe. New York, National Industrial Conference Board, Inc., 1948. 32 pp., forms, illus. (Studies in Personnel Policy, No. 89.)

Experience With Psychological Tests. New York, National Industrial Conference Board, Inc., 1948. 32 pp., charts. (Studies in Personnel Policy, No. 92.)

Getting Results from Suggestion Plans: A Practical Handbook of Suggestion Plan Policy and Procedure. By Herman W. Seinwerth. New York, McGraw-Hill Book Co., Inc., 1948. 223 pp., bibliography, forms, illus. \$3.

Factors Affecting Employee Morale. By S. Avery Raube. New York, National Industrial Conference Board, Inc., 1947. 35 pp. (Studies in Personnel Policy, No. 85.)

Helping the Employee to Know and Like His Job. By R. K. Lane. (In Public Utilities Fortnightly, Washington, June 17, 1948, pp. 827-833. \$1.)

Description of the information program adopted by the Public Service Co. of Oklahoma for its employees.

Telling Employees About Business Operations; Profits. New York, Metropolitan Life Insurance Co., Policyholders Service Bureau, Group Insurance Division, 1948. 59 pp., charts, illus.

Social Security

Annual Report of the Federal Security Agency, for the Fiscal Year 1947. Washington, 1948. xxvi, 632 pp., charts. \$1.75, Superintendent of Documents, Washington.

Presents a separate report for each of the several major branches of the Agency, including the Social Security Administration, Office of Education, Public Health Service, Bureau of Employees' Compensation [for injuries incurred in certain employments within Federal jurisdiction], and Office of Vocational Rehabilitation.

Permanent and Total Disability Insurance. A report to the Senate Committee on Finance from the Advisory Council on Social Security. Washington, Government Printing Office, 1948. 26 pp. (Senate Doc. No. 162, 80th Cong., 2d Sess.)

A summary of this report is given in this issue of the Monthly Labor Review (p. 146). The Council's report on old age and survivors insurance (published as Senate Doc. No. 149, 80th Cong., 2d sess.) was summarized in the June 1948 Review (p. 641).

Sick-Pay Benefit Legislation. A report, October 1, 1947, to the Interstate Conference of Employment Security Agencies by its Committee on Related Programs. Helena, Mont., Naegle Printing Co., 1948. 122 pp.

Discusses major issues and various problems connected with enactment and administration of sick-pay benefit legislation, and analyzes the provisions and operation of the California and Rhode Island systems. Statistics and other data pertinent to the subject are given in appendixes.

Family Allowance Schemes in 1947. (In International Labor Review, Geneva, April 1948, pp. 315-333; May 1948, pp. 456-477. 50 cents each. Distributed in United States by Washington Branch of ILO.)

Survey of existing family allowance systems in various countries.

Inter-American Conference on Social Security, Second Session, Rio de Janeiro, November 10-22, 1947: Report I, Report of the Secretary-General; Reports II-IV, Technical reports. Montreal, International Labor Office, 1947. 2 vols., 128 and 120 pp., respectively. \$1 each. Distributed in United States by Washington Branch of ILO.

II Anuario del Instituto Nacional de Previsión, 1946-1947. Madrid, Instituto Nacional de Previsión, 1947. 463 pp., charts.

This report of the National Social Security Institute of Spain gives information on the Institute and on its operations in 1946, with notes on principal provisions of social-security legislation.

Wages and Hours of Labor

Earnings of Nonfarm Employees in the U. S., 1890-1946. By Stanley Lebergott. (In Journal of the American Statistical Association, Washington, March 1948, pp. 74-93, charts.)

Monthly Report on Current Wage Developments. Washington, U. S. Bureau of Labor Statistics, July 1, 1948. 42 pp.; processed. (No. 7.) Free.

Seventh in a series of reports listing selected wage

adjustments and summarizing major wage actions of recent weeks.

Pay Structure of the Federal Civil Service, 1947. Washington, U. S. Civil Service Commission, 1948. 20 pp.; processed. (Pamphlet No. 33.)

Trends in White Collar Compensation. By Gertrude Deutsch. (In Business Record, National Industrial Conference Board, Inc., New York, May 1948, pp. 221-225.)

Based on Federal Government data for different years, 1939 to 1947.

Wage Structure, Series 2, No. 65: Grain Milling, 1948. Washington, U. S. Bureau of Labor Statistics, 1948. 19 pp.; processed. Free.

Planning Wage and Extra Compensation Policies. New York, American Management Association, 1948. 32 pp. (Personnel Series, No. 119.) 75 cents.

Wage Payment Systems. By Herbert S. Briggs. New York, National Industrial Conference Board, Inc., 1948. 36 pp., charts. (Studies in Personnel Policy, No. 91.)

Descriptions of various types of wage-payment plans in use in American industry today, based on practices of 301 manufacturing establishments. A section of the report deals with wage-incentive provisions in collective-bargaining agreements.

International Labor Conference, 31st Session, San Francisco, 1948—Sixth Item on Agenda, Report VI: Wages—(a) General Report. Geneva, International Labor Office, 1948. 361 pp. \$2. Distributed in United States by Washington Branch of ILO.

This report covers the general problem of wages, the wage situation and wage policy in individual countries, systems of wage payment, wage guaranties, past and possible future action by the International Labor Organization concerning wages, and related matters. Separate volumes of Report VI deal with fair wages clauses in public contracts (in 2 parts, 25 and 35 cents) and protection of wages (in 2 parts, 35 and 60 cents).

Salairé et Sécurité Sociale. By Louis Alvin. Paris, Presses Universitaires de France, 1947. 364 pp., charts. 390 francs.

Discussion of wage and social-security policy in France, giving historical background and purposes of various programs in effect. The author has developed a dual concept of earnings which embraces wage payments for periods of activity (i. e., in some economic activity) and social-security benefits for periods of inactivity. According to the author's estimates, about 40 percent of the average workman's wage (from birth to death) is for periods of inactivity. Sections of the book are devoted to minimum-wage regulations, wage-fixing, and various aspects of the social-security program in France.

A Policy for Real Wages. London, Trades Union Congress, [1948]. 15 pp. 3d.

Statement of policy on prices, wages, and exports, ap-

proved by a conference of British trade-union executive committees.

Women in Industry

The American Woman: A Selected Bibliography of Basic Sources of Current and Historic Interest. Washington, U. S. Department of Labor, Women's Bureau, February 1948. 10 pp.; processed. Free.

The majority of the references are on women as workers.

Community Household Employment Programs. Washington, U. S. Department of Labor, Women's Bureau, 1948. 70 pp., forms. (Bull. No. 221.) 20 cents. Superintendent of Documents, Washington.

Findings of a survey, made by the Women's Bureau in 19 cities, of programs covering standards, training, and placement of workers in household employment, with suggestions by the Bureau for improvement of existing programs and establishment of new ones.

The Outlook for Women in Mathematics and Statistics. Washington, U. S. Department of Labor, Women's Bureau, 1948. 21 pp., bibliography, illus. (Bull. No. 223-4.) 10 cents, Superintendent of Documents, Washington.

Report on Trends in Night Work for Women in New York State Factories, 1941-47. New York, Department of Labor, Division of Industrial Relations, Women in Industry and Minimum Wage, 1948. 25 pp.; processed.

General Reports

Economic Indicators, June 1948. Prepared for Congressional Joint Committee on the Economic Report by Council of Economic Advisers. Washington, Government Printing Office, 1948. 32 pp., charts. 25 cents.

Brings together Federal Government data on prices, employment, production, purchasing power as indicated by various types of income and expenditures, and other subjects, for 1948 (first quarter principally) and earlier years. This is the second number of what may become a monthly publication.

Insights into Labor Issues. Edited by Richard A. Lester and Joseph Shister. New York, Macmillan Co., 1948. 368 pp. \$4.

A series of essays, principally by labor economists, grouped under the following heads: Labor relations, Wages and the labor market, Labor and full employment. The editors made no attempt to coordinate the essays or to present a common point of view; each is therefore an independent contribution.

Working Conditions in 222 Offices. Chicago, Dartnell Corporation, [1947]. Various pages, charts; processed. (Report No. 542.)

Subjects covered include salaries, hours of work, rest periods, vacations, and equal pay for women.

The Economy of Hawaii in 1947, with Special Reference to Wages, Working Conditions, and Industrial Relations.

By James H. Shoemaker. Washington, U. S. Bureau of Labor Statistics, 1948. 214 pp., charts. (Bull. No. 926.) 40 cents, Superintendent of Documents, Washington.

Summary data from this survey are given in Bureau of Labor Statistics Serial No. R. 1925 (from Monthly Labor Review, May and June 1948).

International Labor Conference, 31st Session, San Francisco, 1948—First Item on Agenda, Report I: Report of the Director-General. Geneva, International Labor Office, 1948. 128 pp. 75 cents. Distributed in United States by Washington Branch of ILO.

Evolution des Statistiques Relatives au Travail et aux Questions Sociales Depuis le Début de 1945. By Henri Lacroix. (In Journal de la Société de Statistique de Paris, November-December 1947, pp. 399-405; discussion, pp. 405-409.)

The first two years' activities of the Central Statistical Service of the French Ministry of Labor are reviewed in this paper by the director of the Service, which was

organized in 1945 with the objective of centralizing and revising the Ministry's statistical series.

Prices and Wages Policy. By G. D. N. Worswick and K. Martin (In Bulletin of the Oxford University Institute of Statistics, Oxford, England, March 1948, pp. 84-93, chart. 2s. 6d.)

Discusses effects of the British Government's "Statement on personal incomes, costs, and prices" (Cmd. 7321, 1948) and of subsequent orders on wage and price stabilization in Great Britain.

Statistical Year Book of Poland, 1947. Warsaw, Central Statistical Office, 1947. 195 pp., map. 200 zlotys.

This general statistical annual includes data on employment, prices, cost of living, social insurance, housing, and cooperative societies, in 1946 or 1947 and earlier years.

Forty Years After: Pius XI and the Social Order. A commentary by Raymond J. Miller. St. Paul, Minn., Radio Replies Press, 1947. 328 pp. \$2.75 (paper) or \$3.75 (cloth).

Commentary on the Pope's encyclical Forty Years After. Considerable attention is given to labor matters.

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A: Employment and Pay Rolls

TABLE A-1: Estimated Total Labor Force Classified by Employment Status, Hours Worked, and Sex

Labor force	Estimated number of persons 14 years of age and over ¹ (in thousands)											
	1948						1947					
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July
Total, both sexes												
Total labor force ²	64,740	61,660	61,760	61,005	61,004	60,455	60,870	61,510	62,219	62,130	63,017	64,035
Civilian labor force	63,479	60,422	60,524	59,769	59,778	59,214	59,590	60,216	60,892	60,784	61,665	62,664
Unemployment	2,184	1,761	2,193	2,440	2,639	2,065	1,643	1,621	1,687	1,912	2,096	2,584
Employment	61,296	58,660	58,330	57,329	57,139	57,149	57,947	58,595	59,204	58,872	59,569	60,079
Nonagricultural	51,899	50,800	50,883	50,482	50,368	50,089	50,985	50,609	50,583	50,145	50,594	50,013
Worked 35 hours or more	43,240	42,726	42,179	42,576	40,977	42,242	43,144	42,616	43,102	42,796	41,068	39,602
Worked 15-34 hours	4,910	4,886	4,902	4,467	5,255	4,614	4,674	5,147	4,534	3,988	4,574	4,630
Worked 1-14 hours ³	1,403	1,637	1,776	1,684	1,798	1,513	1,631	1,470	1,391	1,312	-1,224	1,150
With a job but not at work ⁴	2,348	1,550	2,027	1,753	2,338	1,721	1,534	1,376	1,556	2,050	3,726	4,631
Agricultural	9,396	7,861	7,448	6,847	6,771	7,060	6,962	7,985	8,622	8,727	8,975	10,066
Worked 35 hours or more	7,390	5,936	5,670	4,754	3,844	4,729	4,590	5,709	6,867	7,297	6,734	8,067
Worked 15-34 hours	1,669	1,513	1,336	1,397	1,759	1,765	1,631	1,781	1,383	1,077	1,687	1,653
Worked 1-14 hours ³	182	201	187	265	386	250	320	298	204	165	193	171
With a job but not at work ⁴	154	211	255	431	782	315	421	198	167	187	362	174
Males												
Total labor force ²	46,039	44,519	44,589	44,228	44,236	44,071	44,156	44,426	44,754	44,881	45,874	46,213
Civilian labor force	44,794	43,298	43,369	43,009	43,026	42,846	42,892	43,148	43,443	43,551	44,540	44,861
Unemployment	1,375	1,239	1,567	1,765	1,889	1,574	1,239	1,176	1,183	1,393	1,518	1,789
Employment	43,420	42,058	41,801	41,244	41,137	41,273	41,653	41,972	42,260	42,158	43,022	43,071
Nonagricultural	36,162	35,386	35,352	35,063	35,046	35,018	35,484	35,323	35,340	35,202	35,452	34,937
Worked 35 hours or more	31,700	31,006	30,575	30,649	29,592	30,719	31,147	31,020	31,476	31,232	30,302	29,041
Worked 15-34 hours	2,535	2,565	2,525	2,390	2,800	2,414	2,411	2,709	2,212	2,094	2,506	2,555
Worked 1-14 hours ³	597	709	787	729	899	610	738	622	630	522	487	446
With a job but not at work ⁴	1,332	1,105	1,465	1,294	1,755	1,275	1,187	972	1,022	1,355	2,156	2,895
Agricultural	7,257	6,673	6,450	6,181	6,091	6,254	6,169	6,649	6,920	6,955	7,570	8,134
Worked 35 hours or more	6,310	5,625	5,321	4,548	3,698	4,505	4,376	5,236	5,913	6,175	6,191	7,130
Worked 15-34 hours	707	862	816	1,035	1,375	1,255	1,177	1,038	736	523	937	775
Worked 1-14 hours ³	111	136	124	211	330	202	252	194	128	87	141	98
With a job but not at work ⁴	129	150	189	387	688	292	364	180	142	169	303	130
Females												
Total labor force ²	18,701	17,141	17,171	16,777	16,768	16,384	16,714	17,084	17,465	17,249	17,143	17,822
Civilian labor force	18,685	17,124	17,155	16,760	16,752	16,368	16,698	17,068	17,449	17,233	17,125	17,803
Unemployment	809	522	626	675	750	491	404	445	504	519	578	795
Employment	17,876	16,602	16,529	16,085	16,002	15,876	16,294	16,623	16,944	16,714	16,547	17,008
Nonagricultural	15,737	15,414	15,531	15,419	15,322	15,071	15,501	15,286	15,243	14,943	15,142	15,076
Worked 35 hours or more	11,540	11,720	11,604	11,927	11,385	11,523	11,997	11,596	11,626	11,564	10,766	10,561
Worked 15-34 hours	2,375	2,321	2,377	2,077	2,455	2,200	2,263	2,438	2,322	1,894	2,068	2,075
Worked 1-14 hours ³	806	928	989	955	899	903	893	848	761	790	737	704
With a job but not at work ⁴	1,016	445	562	459	583	446	347	404	534	695	1,570	1,736
Agricultural	2,139	1,188	998	666	680	806	793	1,336	1,702	1,772	1,405	1,932
Worked 35 hours or more	1,080	411	349	206	146	224	214	473	954	1,122	543	937
Worked 15-34 hours	962	651	520	362	384	510	454	743	647	554	750	878
Worked 1-14 hours ³	71	65	63	54	56	48	68	104	76	78	52	73
With a job but not at work ⁴	25	61	66	44	94	23	57	18	25	18	59	44

¹ Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution. All data exclude persons in institutions. Because of rounding, the individual figures do not necessarily add to group totals.

² Total labor force consists of the civilian labor force and the armed forces.

³ Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

⁴ Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute, or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

Source: U. S. Department of Commerce, Bureau of the Census.

TABLE A-2: Estimated Number of Wage and Salary Workers in Nonagricultural Establishments, by Industry Division¹

[In thousands]

Industry division	1948						1947							Annual average	
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1943	1939
Total estimated employment.....	45,046	44,609	44,298	44,600	44,279	44,603	45,618	44,918	44,758	44,513	44,125	43,686	43,816	42,042	30,287
Manufacturing.....	16,161	15,893	15,945	16,269	16,183	16,267	16,354	16,256	16,209	16,175	15,962	15,580	15,672	17,381	10,078
Mining.....	948	933	820	924	914	922	925	923	922	921	923	890	919	917	845
Anthracite.....	82	81	82	82	81	81	81	81	81	81	82	79	80	83	89
Bituminous coal.....	424	420	309	419	415	422	421	417	415	412	408	379	409	437	388
Metal.....	104	102	102	102	101	100	100	100	99	100	102	101	103	126	103
Quarrying and nonmetallic.....	97	96	95	90	87	89	94	96	97	98	99	98	98	90	76
Crude petroleum and natural gas production ¹	241	234	232	231	230	230	229	229	230	230	232	233	229	181	189
Contract construction ²	2,164	2,049	1,933	1,805	1,731	1,871	1,978	2,046	2,099	2,107	2,096	2,043	1,957	1,567	1,150
Transportation and public utilities ³	4,106	4,041	3,977	4,032	4,019	4,020	4,071	4,077	4,097	4,134	4,163	4,155	4,129	3,619	2,912
Transportation ⁴	2,861	2,808	2,747	2,808	2,802	2,809	2,858	2,872	2,899	2,929	2,946	2,943	2,934	2,746	2,080
Communication.....	734	731	731	728	723	719	719	713	707	713	722	721	712	488	391
Other public utilities.....	511	502	499	496	494	492	494	492	491	492	495	491	483	385	441
Trade.....	9,671	9,615	9,574	9,598	9,520	9,622	10,288	9,886	9,684	9,471	9,356	9,316	9,324	7,322	6,705
Finance.....	1,726	1,716	1,704	1,697	1,690	1,680	1,676	1,673	1,671	1,668	1,688	1,675	1,650	1,401	1,382
Service.....	4,663	4,738	4,768	4,729	4,730	4,723	4,688	4,670	4,662	4,634	4,619	4,686	4,711	3,786	3,228
Government ⁵	5,607	5,624	5,577	5,546	5,492	5,498	5,638	5,387	5,414	5,403	5,318	5,341	5,454	6,049	3,987
Federal.....	1,804	1,788	1,771	1,758	1,746	1,743	1,985	1,751	1,744	1,761	1,795	1,828	1,886	2,875	898
State and local ⁶	3,803	3,836	3,806	3,788	3,746	3,755	3,653	3,636	3,670	3,642	3,523	3,513	3,568	3,174	3,089

¹ Estimates are based upon reports submitted by cooperating establishments and therefore differ from employment information obtained by household interviews, such as the Monthly Report on the Labor Force. The Bureau of Labor Statistics estimates of employment in nonagricultural establishments differ from those of the Monthly Report on the Labor Force (Table A-1) in several important respects. The Bureau of Labor Statistics estimates cover all full- and part-time wage and salary workers in private nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month, in Federal establishments during the pay period ending just before the first of the month, and in State and local government during the pay period ending on or just before the last of the month. Persons who worked in more than one establishment during the reporting period would be counted more than once. Proprietors, self-employed persons, domestic servants, unpaid family workers, and personnel of the armed forces are excluded. These estimates have been adjusted to levels indicated by Federal Security Agency data through 1946 and are not comparable with data published in mimeographed releases dated prior to June 1948 or the Monthly Labor Review dated prior to July 1948. The estimates have

been carried forward from 1946 bench-mark levels, thereby providing consistent series. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics. Data for the current and immediately preceding months are subject to revision.

² Includes well drilling and rig building.

³ These figures cover all employees of private firms whose major activity is construction. They are not directly comparable with the construction employment estimates presented in table 2, p. 1111, of the June 1947 issue of this publication, which include self-employed persons, working proprietors, and force-account workers and other employees of nonconstruction firms or public bodies who engage in construction work, as well as all employees of construction firms. An article presenting this other construction employment series appeared in the August 1947 issue of this publication, and will appear quarterly thereafter.

⁴ Figures are not strictly comparable with those of preceding months because of the transfer of some companies from private to municipal operation in October 1947.

TABLE A-3: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by Major Industry Group¹

[In thousands]

Major industry group	1948						1947							Annual average	
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1943	1939
All manufacturing	16,161	15,893	15,945	16,269	16,183	16,267	16,354	16,256	16,209	16,175	15,962	15,580	15,672	17,381	10,078
Durable goods	8,131	8,113	8,159	8,258	8,167	8,256	8,274	8,194	8,126	8,070	7,987	7,874	8,050	10,297	4,357
Nondurable goods	8,030	7,780	7,786	8,011	8,016	8,011	8,080	8,062	8,083	8,105	7,975	7,706	7,622	7,084	5,720
Iron and steel and their products	1,906	1,893	1,896	1,929	1,920	1,925	1,922	1,908	1,896	1,892	1,884	1,854	1,871	2,034	1,171
Electrical machinery	725	727	742	756	763	767	773	772	763	752	745	742	759	914	355
Machinery, except electrical	1,586	1,574	1,562	1,587	1,591	1,583	1,589	1,569	1,565	1,560	1,552	1,519	1,558	1,585	690
Transportation equipment, except automobiles	560	563	589	589	589	598	591	578	552	540	530	527	594	2,951	193
Automobiles	923	963	979	985	914	989	983	961	964	960	926	941	939	845	466
Nonferrous metals and their products	467	467	475	482	478	478	482	479	472	468	463	462	475	525	283
Lumber and timber basic products	880	846	829	827	813	816	829	828	827	821	821	793	798	589	465
Furniture and finished lumber products	550	549	561	576	581	580	578	573	565	557	549	534	541	429	385
Stone, clay, and glass products	534	531	526	527	518	520	527	526	522	520	517	502	515	422	349
Textile-mill products and other fiber manufactures	1,418	1,416	1,425	1,435	1,428	1,413	1,409	1,391	1,368	1,341	1,320	1,305	1,325	1,330	1,235
Apparel and other finished textile products	1,263	1,247	1,298	1,334	1,333	1,311	1,305	1,277	1,287	1,251	1,222	1,141	1,141	1,080	894
Leather and leather products	419	406	418	442	448	445	446	442	438	435	429	417	414	378	383
Food	1,828	1,609	1,562	1,655	1,658	1,688	1,735	1,769	1,833	1,964	1,922	1,785	1,666	1,418	1,192
Tobacco manufactures	98	97	99	100	101	101	102	104	103	100	99	97	97	103	105
Paper and allied products	476	476	476	480	479	482	484	479	476	470	469	462	470	389	320
Printing, publishing, and allied industries	720	720	718	722	724	726	732	726	720	713	710	706	705	549	561
Chemicals and allied products	757	759	767	773	773	774	778	777	773	763	750	752	748	873	421
Products of petroleum and coal	246	242	238	238	237	238	238	239	237	238	238	237	235	170	147
Rubber products	243	243	246	253	257	259	261	259	257	252	252	250	257	231	150
Miscellaneous industries	562	565	569	579	578	574	590	599	591	578	564	554	564	563	311

¹ Estimates include all full- and part-time production and nonproduction workers in manufacturing industries who worked or received pay during the pay period ending nearest the 15th of the month. These estimates have been adjusted to levels indicated by Federal Security Agency data through 1946

and are not comparable with data published in mimeographed releases dated prior to June 1948 or the Monthly Labor Review dated prior to July 1948. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics.

TABLE A-4: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by State¹

[In thousands]

Region and State	1948					1947								Annual aver- age 1941
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	
New England:														
Maine ²	108.2	106.7	115.2	116.5	116.9	118.5	117.4	116.9	119.6	119.4	112.9	108.2	106.8	141.4
New Hampshire	81.6	82.6	84.4	85.6	85.8	85.3	83.9	82.9	82.1	80.7	77.6	79.3	78.7	77.0
Vermont ³	37.8	38.1	38.7	38.8	39.1	40.0	39.5	39.3	39.2	39.1	37.2	38.4	38.7	41.3
Massachusetts	724.4	729.7	745.7	746.0	747.3	757.2	753.2	741.6	732.5	720.4	707.2	724.7	734.3	835.6
Rhode Island	147.0	149.9	153.6	154.5	153.5	154.6	154.3	152.9	148.1	143.0	141.4	147.0	147.7	169.4
Connecticut ⁴	401.1	406.4	412.5	412.1	413.2	417.8	415.7	414.8	409.2	406.0	403.3	410.4	415.0	504.2
Middle Atlantic:														
New York	1,829.0	1,850.4	1,902.6	1,906.4	1,905.8	1,924.6	1,918.6	1,922.8	1,900.1	1,870.8	1,801.9	1,841.6	1,858.0	2,115.7
New Jersey	740.0	746.0	753.7	757.8	757.3	764.0	757.4	751.4	749.2	735.9	719.6	745.2	727.0	951.1
Pennsylvania	1,487.1	1,495.9	1,512.2	1,510.9	1,514.6	1,527.2	1,523.0	1,517.9	1,504.5	1,490.9	1,470.9	1,487.2	1,494.6	1,679.3
East North Central:														
Ohio	1,230.9	1,230.7	1,244.0	1,243.9	1,246.0	1,250.9	1,247.3	1,244.7	1,244.0	1,238.1	1,232.0	1,244.5	1,238.7	1,363.4
Indiana	541.1	540.0	552.8	553.4	556.3	559.0	558.7	561.0	580.0	552.3	550.0	553.2	550.1	633.1
Illinois	1,203.5	1,198.0	1,253.5	1,267.0	1,271.0	1,273.6	1,266.3	1,257.0	1,249.0	1,237.8	1,228.6	1,238.3	1,232.0	1,263.7
Michigan	998.5	1,002.7	1,010.9	970.7	1,019.6	1,024.2	1,019.0	1,021.8	1,023.3	1,004.6	997.0	1,013.1	980.3	1,181.8
Wisconsin ⁵	420.0	426.3	432.5	434.2	433.9	436.1	433.1	433.3	452.0	446.6	461.5	427.9	423.5	442.8
West North Central:														
Minnesota	190.2	188.0	197.3	198.3	199.3	200.3	199.9	199.0	209.9	201.6	205.1	194.5	193.5	215.1
Iowa	133.7	132.1	148.8	150.5	150.8	151.8	149.8	148.6	149.4	149.1	147.4	146.5	145.0	161.7
Missouri	353.8	355.8	361.4	363.5	364.5	367.6	366.8	362.6	356.8	356.6	352.9	355.5	351.3	412.9
North Dakota	6.7	6.4	6.3	6.4	6.6	6.7	6.8	6.7	6.7	6.9	6.8	6.8	6.7	5.8
South Dakota	11.3	11.3	11.0	11.1	11.2	11.3	11.5	11.4	11.3	11.5	11.8	11.5	11.3	10.3
Nebraska	36.1	34.9	42.4	43.0	43.8	46.3	45.9	45.1	43.1	43.2	43.4	43.1	42.5	60.8
Kansas	77.0	73.3	77.6	78.3	80.5	81.9	79.9	79.8	79.4	80.0	80.7	81.0	79.5	144.2
South Atlantic:														
Delaware	45.7	46.5	46.5	45.9	45.7	46.1	45.8	45.8	48.2	48.4	45.2	45.4	45.4	55.2
Maryland	228.5	228.2	228.9	228.5	226.9	229.6	231.1	229.3	232.4	228.2	217.4	224.3	228.9	348.8
District of Columbia	17.2	17.4	17.1	16.8	17.3	17.5	17.4	17.5	17.5	17.3	17.4	17.2	17.1	15.6
Virginia	210.4	212.8	213.7	213.5	213.6	215.1	217.3	217.0	214.5	211.5	209.2	207.9	209.4	231.9
West Virginia	132.3	131.9	130.9	130.3	132.4	132.5	133.0	133.4	132.8	132.5	131.0	132.6	131.5	132.2
North Carolina	381.4	382.6	385.8	380.4	382.7	380.8	378.7	374.1	368.1	366.6	365.2	366.0	366.4	399.9
South Carolina	199.3	199.3	200.5	196.9	198.3	198.9	197.6	194.8	192.3	192.0	191.5	188.9	188.7	191.8
Georgia	252.0	252.4	257.3	258.5	259.4	257.4	256.7	253.9	251.9	248.5	238.2	246.2	249.7	302.9
Florida ⁶	93.2	96.5	99.4	98.9	100.3	97.8	95.0	90.4	88.6	86.8	85.7	88.2	88.9	136.0
East South Central:														
Kentucky	126.1	128.2	129.5	129.4	129.5	130.4	130.7	130.3	128.2	125.8	122.4	123.6	123.9	131.7
Tennessee	250.8	251.5	252.8	252.8	252.1	252.4	253.0	253.8	251.8	250.8	246.2	245.2	245.7	255.9
Alabama ⁷	228.0	227.3	231.8	231.1	233.7	231.9	231.8	228.9	226.5	221.4	219.6	221.1	222.8	258.5
Mississippi	88.1	88.6	90.0	90.5	95.5	95.7	95.5	94.1	95.0	95.3	91.4	90.9	88.5	95.1
West South Central:														
Arkansas ⁸	75.1	74.8	74.3	74.4	75.3	76.1	77.1	77.1	81.2	80.5	75.1	74.2	74.7	78.7
Louisiana	137.4	138.3	137.2	137.0	140.2	142.2	141.2	143.5	142.7	142.6	140.9	138.6	136.6	166.1
Oklahoma	56.5	56.3	55.0	55.0	56.4	57.0	56.5	55.7	55.2	55.2	53.8	53.5	53.0	99.7
Texas	341.7	338.7	337.1	340.2	342.9	346.8	347.6	339.9	337.8	341.5	335.1	339.3	324.5	424.8
Mountain:														
Montana	17.1	17.1	17.2	17.3	17.7	18.5	18.7	19.1	18.1	18.2	18.4	17.8	17.1	15.7
Idaho	18.7	17.9	17.8	18.2	18.6	19.2	20.1	20.4	19.3	19.5	20.8	20.1	19.2	15.9
Wyoming	6.5	6.3	6.2	6.1	6.1	7.0	7.2	7.1	6.8	6.8	6.7	6.3	6.1	5.1
Colorado	54.5	55.4	55.5	55.1	57.2	61.0	60.3	60.6	57.9	56.6	55.9	54.6	53.8	67.5
New Mexico ⁹	9.3	8.8	8.3	8.7	8.7	9.1	9.1	9.4	9.6	9.8	9.6	9.6	9.1	7.9
Arizona ¹⁰	16.3	15.9	15.4	15.0	14.6	14.7	14.6	14.0	13.8	13.4	14.0	14.8	14.6	19.4
Utah	24.2	22.6	23.9	23.9	25.1	26.8	27.3	29.4	30.1	26.3	29.1	24.9	24.1	33.5
Nevada ¹¹	3.3	3.3	3.3	3.3	3.3	3.3	3.5	3.5	3.4	3.4	3.4	3.3	3.3	7.9
Pacific:														
Washington	152.4	175.3	173.7	173.0	173.0	174.6	178.2	183.9	191.7	185.0	176.5	179.3	174.9	285.6
Oregon	110.7	110.2	110.2	109.2	109.8	111.4	112.2	117.2	122.2	122.4	116.6	119.1	117.1	192.1
California	696.3	695.8	700.4	703.5	705.0	715.1	717.7	736.4	744.8	760.2	704.0	689.3	693.1	1,165.5

¹ Revised data in all except the first three columns are identified by an asterisk for the first month's publication of such data. Comparable series, January 1943 to date, available upon request to U. S. Department of Labor, or cooperating State Agency listed below.

² 1943 averages may not be strictly comparable with current data for those States now on Standard Industrial Classification.

³ Series based on Standard Industrial Classification. Data for Arkansas and Maine may not be strictly comparable with those published prior to the current report.

⁴ Revised.

Cooperating State Agencies:

Alabama—Department of Industrial Relations, Montgomery 5.
 Arizona—Unemployment Compensation Division, Employment Security Commission, Phoenix.
 Arkansas—Employment Security Division, Department of Labor, Little Rock.
 California—Division of Labor Statistics and Research, Department of Industrial Relations, San Francisco 2.
 Connecticut—Employment Security Division, Department of Labor and Factory Inspection, Hartford 15.
 Delaware—Federal Reserve Bank of Philadelphia, Philadelphia 1, Pa.
 Florida—Unemployment Compensation Division, Industrial Commission, Tallahassee.
 Georgia—Employment Security Agency, Department of Labor, Atlanta 3.
 Illinois—Department of Labor, Chicago 1.
 Indiana—Employment Security Division, Indianapolis 9.
 Iowa—Employment Security Commission, Des Moines 8.
 Kansas—State Labor Department, Topeka.
 Louisiana—Bureau of Business Research, Louisiana State University, Baton Rouge 3.
 Maine—Unemployment Compensation Commission, Augusta.

Maryland—Department of Labor and Industry, Baltimore 2.

Massachusetts—Department of Labor and Industries, Boston 33.

Michigan—Department of Labor and Industry, Lansing 13.

Minnesota—Division of Employment and Security, Department of Social Security, St. Paul 1.

Missouri—Division of Employment Security, Department of Labor and Industrial Relations, Jefferson City.

Montana—Unemployment Compensation Commission, Helena.

Nebraska—Division of Placement and Unemployment Insurance, Department of Labor, Lincoln 1.

Nevada—Employment Security Department, Carson City.

New Jersey—Department of Labor, Trenton 8.

New Mexico—Employment Security Commission, Albuquerque.

New York—Division of Placement and Unemployment Insurance, Department of Labor, New York 17.

North Carolina—Department of Labor, Raleigh.

Oklahoma—Employment Security Commission, Oklahoma City 2.

Pennsylvania—Federal Reserve Bank of Philadelphia, Philadelphia 1.

(manufacturing); Bureau of Research and Information, Department of Labor and Industry, Harrisburg (nonmanufacturing).

Rhode Island—Division of Census and Information, Department of Labor, Providence 2.

Tennessee—Department of Employment Security, Nashville 3.

Texas—Bureau of Business Research, University of Texas, Austin 12.

Utah—Department of Employment Security, Industrial Commission, Salt Lake City 13.

Vermont—Unemployment Compensation Commission, Montpelier.

Virginia—Division of Research and Statistics, Department of Labor and Industry, Richmond 21.

Washington—Employment Security Department, Olympia.

Wisconsin—Statistical Department, Industrial Commission, Madison 1.

Wyoming—Employment Security Commission, Casper.

TABLE A-5: Estimated Number of Production Workers in Manufacturing Industries ¹

[In thousands]

Industry group and industry	1948						1947								Annual average	
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1943	1939	
Manufacturing ¹	12,995	12,723	12,788	13,131	13,066	13,150	13,263	13,176	13,143	13,125	12,928	12,562	12,672	14,560	8,192	
Durable goods ¹	6,658	6,630	6,680	6,791	6,711	6,795	6,816	6,746	6,681	6,630	6,555	6,452	6,639	8,727	3,611	
Nondurable goods ¹	6,297	6,093	6,108	6,340	6,355	6,355	6,447	6,430	6,462	6,495	6,373	6,110	6,033	5,834	4,581	
Durable goods																
Iron and steel and their products ¹	1,610	1,600	1,603	1,634	1,628	1,634	1,633	1,619	1,609	1,604	1,597	1,569	1,588	1,761	991	
Blast furnaces, steel works, and rolling mills.....		517.7	511.8	516.1	508.5	508.8	506.5	505.6	505.1	505.1	508.6	503.0	501.2	516.7	388.4	
Gray-iron and semisteel castings.....		107.1	110.7	113.9	114.5	114.4	113.8	113.1	113.1	112.4	113.6	113.0	115.0	88.4	62.2	
Malleable-iron castings.....		37.3	37.2	37.9	37.8	37.9	37.6	36.7	36.1	35.6	35.4	33.7	35.6	28.8	19.2	
Steel castings.....		68.4	68.6	69.3	68.6	67.7	67.0	66.4	66.2	66.2	65.5	64.0	65.4	90.1	32.1	
Cast-iron pipe and fittings.....		27.1	27.5	28.3	28.0	28.7	28.7	28.3	28.1	27.8	27.5	27.1	27.4	18.0	17.6	
Tin cans and other tinware.....		42.8	42.1	44.5	45.7	47.4	47.8	47.1	47.0	48.4	47.6	44.3	42.7	32.4	31.8	
Wire drawn from purchased rods.....		29.4	30.1	30.6	30.9	31.4	31.6	31.2	31.0	30.5	30.8	30.6	31.0	36.0	22.0	
Wirework.....		41.1	41.9	43.4	42.5	43.5	42.4	40.5	40.6	41.1	40.3	39.0	39.9	32.8	30.4	
Cutlery and edge tools.....		23.1	23.7	24.0	24.6	24.7	25.0	24.8	24.5	23.9	23.3	21.5	23.5	21.8	15.4	
Tools (except edge tools, machine tools, files, and saws).....		25.2	25.5	25.7	25.8	25.9	25.9	25.4	25.0	24.6	24.4	23.9	25.4	27.8	15.3	
Hardware.....		51.9	53.0	54.3	54.1	53.2	52.6	51.1	50.3	49.3	48.3	49.1	49.9	45.3	35.7	
Plumbers' supplies.....		39.3	39.4	40.2	40.0	40.0	40.0	39.6	38.7	38.4	38.5	38.3	39.0	25.0	26.2	
Stoves, oil burners, and heating equipment, not elsewhere classified.....		79.5	77.8	83.1	86.5	88.5	90.9	91.5	91.1	90.3	86.4	82.7	84.3	60.4	49.2	
Steam and hot-water heating apparatus and steam fittings.....		60.8	59.8	62.7	63.2	62.6	62.5	61.8	61.7	61.2	61.3	60.3	64.0	64.4	32.3	
Stamped and enameled ware and galvanizing.....		110.9	112.2	114.1	115.1	115.5	117.1	116.4	115.3	114.7	111.9	109.2	110.9	97.0	59.2	
Fabricated structural and ornamental metalwork.....		60.0	60.6	60.7	60.2	60.5	60.7	60.5	59.8	60.3	60.3	59.1	59.2	71.0	35.5	
Metal doors, sash, frames, molding, and trim.....		10.2	10.1	10.5	10.2	10.8	10.9	10.7	10.5	10.3	10.1	9.6	9.4	12.8	7.7	
Bolts, nuts, washers, and rivets.....		28.6	28.9	28.9	28.7	28.7	28.6	28.4	27.8	28.3	28.4	27.7	28.5	31.6	15.2	
Forgings, iron and steel.....		35.1	36.7	37.5	37.6	37.8	37.4	36.8	36.7	36.3	36.2	35.9	36.5	43.6	16.4	
Wrought pipe, welded and heavy-riveted.....		18.8	18.8	19.2	19.1	19.8	19.6	18.9	18.4	17.8	17.7	17.3	17.1	28.4	8.9	
Screw-machine products and wood screws.....		36.4	36.8	36.8	36.6	36.1	35.8	35.5	35.4	35.3	35.4	36.0	37.3	53.8	18.0	
Steel barrels, kegs, and drums.....		7.6	7.7	7.9	8.1	8.4	8.2	8.0	8.0	8.2	8.3	8.4	8.2	9.5	6.5	
Firearms.....		21.2	21.0	20.8	20.4	20.0	19.7	19.3	19.0	18.5	18.3	19.3	19.0	71.7	5.3	
Electrical machinery ¹.....																
Electrical equipment.....	546	548	563	577	584	588	596	595	588	578	569	567	584	741	259	
Radio and phonographs.....		357.4	364.9	371.7	376.5	378.4	382.2	380.3	377.1	373.7	368.2	368.8	378.3	497.5	182.7	
Communication equipment.....		90.0	93.4	97.6	99.2	100.3	104.8	106.3	104.3	99.6	96.8	93.3	98.3	124.1	44.0	
		90.0	93.9	96.5	97.2	98.2	98.2	97.5	95.6	93.6	93.3	94.0	97.3	119.3	32.5	
Machinery, except electrical ¹.....																
Machinery and machine-shop products.....	1,217	1,207	1,202	1,232	1,237	1,231	1,235	1,218	1,214	1,209	1,198	1,171	1,208	1,293	529	
Engines and turbines.....		489.6	495.9	500.1	502.8	500.2	498.9	497.3	498.8	498.7	495.1	490.8	501.3	586.0	207.6	
Tractors.....		53.5	53.9	54.7	54.4	54.6	54.5	53.0	53.3	53.5	53.5	53.1	53.1	79.5	18.7	
Agricultural machinery, excluding tractors.....		56.3	44.8	62.2	61.9	61.4	60.3	58.6	58.0	57.1	55.7	56.8	57.0	52.4	31.3	
Machine tools.....		75.2	76.2	75.9	74.6	72.3	71.0	68.0	67.5	67.6	66.4	64.4	67.5	45.1	28.5	
Machine-tool accessories.....		47.5	47.7	49.2	50.4	50.4	51.3	51.1	52.1	52.3	52.5	50.6	53.9	109.7	36.6	
Textile machinery.....		55.4	55.5	55.9	56.3	56.4	56.3	55.8	55.6	56.0	56.4	55.4	59.1	105.4	25.8	
Pumps and pumping equipment.....		41.4	41.2	41.1	40.8	40.7	40.6	39.8	39.3	37.3	36.4	36.4	39.0	28.5	21.9	
Typewriters.....		69.3	69.9	71.3	73.0	73.1	72.8	72.2	72.3	73.9	73.3	74.1	77.0	92.8	24.9	
Cash registers; adding, and calculating machines.....		23.8	24.1	24.9	25.1	25.8	25.9	25.2	24.8	24.2	23.6	14.5	18.3	12.0	16.2	
Washing machines, wringers, and driers, domestic.....		45.6	46.3	46.1	45.9	45.3	45.2	44.1	43.0	42.1	41.0	37.9	38.1	34.8	19.7	
Sewing machines, domestic and industrial.....		16.0	16.2	16.3	16.5	16.2	16.3	15.8	15.3	14.9	15.1	14.6	15.0	13.3	7.5	
Refrigerators and refrigeration equipment.....		13.9	13.8	13.7	13.5	13.4	13.3	13.0	12.6	12.1	12.1	12.0	10.8	10.7	7.8	
Transportation equipment, except automobiles ¹		82.6	79.7	81.0	81.6	82.6	81.5	80.1	79.7	79.1	78.6	77.2	78.9	54.4	35.2	
Automobiles ¹.....																
Locomotives.....	434	438	462	465	464	472	463	452	427	414	405	403	472	2,508	169	
Cars, electric and steam-railroad.....		26.4	26.6	26.6	26.5	26.3	26.3	26.0	25.9	25.1	24.4	23.8	24.3	34.1	6.5	
Aircraft and parts, excluding aircraft engines.....		53.9	53.9	54.4	54.0	55.9	56.9	56.8	55.2	55.4	54.6	55.1	54.9	60.5	24.5	
Aircraft engines.....		125.1	137.3	136.1	135.3	134.7	133.2	133.4	133.9	129.7	130.7	129.3	133.9	794.9	39.7	
Shipbuilding and boatbuilding.....		25.1	24.8	24.6	24.9	25.3	25.9	25.9	26.2	26.6	26.7	26.8	26.9	233.5	8.9	
Motorcycles, bicycles, and parts.....		116.1	122.5	125.8	127.7	132.9	125.7	117.6	100.2	93.0	87.1	87.7	140.4	1,225.2	69.2	
		12.9	14.4	14.8	14.6	14.5	14.7	14.4	14.1	13.9	13.6	13.0	13.3	10.0	7.0	
Automobiles ¹.....																
Nonferrous metals and their products ¹	737	759	772	784	720	789	785	766	764	767	741	753	758	714	402	
Smelting and refining, primary, of nonferrous metals.....	398	398	406	413	409	409	413	410	404	400	396	393	408	449	229	
Alloying; and rolling and drawing of nonferrous metals, except aluminum.....		41.4	41.0	40.8	40.2	39.9	40.0	39.7	39.7	39.8	39.9	40.8	40.4	56.4	27.6	
Clocks and watches.....		52.6	53.7	54.6	53.1	53.6	53.4	52.9	53.0	53.2	53.4	54.3	57.6	75.8	38.8	
Jewelry (precious metals) and jewelers' findings.....		28.2	28.5	28.8	28.6	28.6	28.6	28.4	28.1	27.8	27.2	24.8	27.5	25.2	20.3	
Silverware and plated ware.....		26.3	27.1	27.6	27.5	27.3	27.7	28.1	27.5	26.4	25.6	24.7	25.3	20.5	14.4	
		27.2	27.5	27.5	27.1	26.8	27.1	26.5	26.1	25.5	25.0	23.7	24.3	15.1	12.1	

See footnote at end of table.

TABLE A-5: Estimated Number of Production Workers in Manufacturing Industries ¹—Continued

[In thousands]

Industry group and industry	1948						1947						Annual average		
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1943	1946
Durable goods—Continued															
Nonferrous metals and their products ¹ —Con.															
Lighting equipment.....		30.2	31.3	33.1	33.9	33.6	34.1	34.3	34.9	35.2	35.3	36.4	37.0	28.2	20.1
Aluminum manufactures.....		42.7	44.2	45.2	45.2	45.3	44.8	43.6	43.1	42.4	41.0	40.0	43.6	79.4	22.1
Sheet-metal work, not elsewhere classified.....		35.2	36.0	36.8	36.9	37.3	39.4	39.2	38.8	37.6	37.7	37.6	38.6	37.9	18.1
Lumber and timber basic products ¹	799	768	751	749	736	738	750	751	751	745	745	721	727	535	42.1
Sawmills and logging camps.....		549.2	536.5	536.6	526.7	531.3	544.4	547.3	550.2	549.6	551.5	531.3	534.7	435.8	311.5
Planing and plywood mills.....		136.2	135.3	135.3	134.5	134.6	133.6	132.4	129.8	128.1	127.1	126.5	128.6	99.2	70.7
Furniture and finished lumber products ¹	459	458	470	485	490	489	487	483	475	466	460	445	452	366	32.4
Mattresses and bedsprings.....		31.2	32.7	34.6	36.2	36.3	36.0	35.9	34.9	33.3	31.5	28.5	29.9	21.7	20.1
Furniture.....		233.3	239.7	246.9	249.4	248.6	246.8	243.6	238.6	233.1	230.3	223.9	227.0	200.0	177.2
Wooden boxes, other than cigar.....		32.5	33.8	34.6	35.2	35.5	34.8	35.3	36.0	35.8	35.6	35.1	36.2	35.4	28.3
Caskets and other morticians' goods.....		18.6	19.0	19.6	19.4	19.7	19.8	19.7	19.4	19.6	19.4	19.1	19.2	14.2	11.1
Wood preserving.....		15.5	15.1	15.6	15.7	16.5	16.9	17.4	17.9	18.2	18.9	18.8	18.6	12.4	12.4
Wood, turned and shaped.....		32.1	32.8	33.5	32.9	32.2	32.8	32.5	31.6	31.4	31.5	30.2	30.2	26.4	24.0
Stone, clay, and glass products ¹	458	454	451	452	443	445	454	452	449	447	444	430	442	360	294
Glass and glassware.....		117.5	117.9	117.8	115.1	117.2	119.7	120.1	120.0	118.9	118.2	113.1	120.3	99.8	71.4
Glass products made from purchased glass.....		12.2	12.4	12.5	12.4	12.5	12.7	12.6	12.2	12.0	12.0	12.4	12.4	11.3	10.6
Cement.....		37.1	36.6	36.4	36.6	36.3	36.7	36.8	36.8	37.0	36.8	35.7	35.3	27.1	24.0
Brick, tile, and terra cotta.....		77.7	76.1	75.5	73.7	76.3	76.3	75.8	75.6	75.4	75.1	73.3	73.0	52.5	50.0
Pottery and related products.....		57.1	56.6	57.6	56.5	56.1	57.6	57.2	56.1	55.9	56.1	54.3	55.5	45.0	33.0
Gypsum.....		6.5	6.6	6.6	6.6	6.6	6.6	6.5	6.4	6.1	6.1	6.1	6.0	4.5	4.0
Wallboard, plaster (except gypsum), and mineral wool.....		12.5	12.4	12.4	12.5	12.6	12.7	12.7	12.3	12.1	11.8	11.5	11.2	11.1	8.1
Lime.....		9.5	9.6	9.5	9.3	9.3	9.3	9.5	9.1	9.2	9.2	9.3	9.3	9.3	9.3
Marble, granite, slate, and other products.....		18.2	17.9	18.4	17.9	18.0	18.3	18.5	18.4	18.5	18.4	16.8	16.5	12.5	18.1
Abrasives.....		17.5	17.5	17.5	17.1	13.8	16.8	16.5	16.5	16.9	16.2	17.0	18.7	23.4	7.7
Asbestos products.....		21.8	21.9	22.0	21.8	21.9	21.7	21.3	21.3	21.0	20.6	19.5	20.7	22.0	15.0
Nondurable goods															
Textile-mill products and other fiber manufactures ¹	1,295	1,293	1,301	1,312	1,306	1,292	1,290	1,271	1,249	1,223	1,202	1,187	1,208	1,237	1,144
Cotton manufactures, except smallwares.....		524.7	526.4	529.4	525.3	523.6	523.2	516.9	508.2	498.9	494.1	492.6	501.7	526.3	418.4
Cotton smallwares.....		14.4	14.6	14.9	14.9	14.6	14.3	13.9	13.7	13.4	13.1	13.1	13.7	17.8	14.1
Silk and rayon goods.....		111.8	111.7	111.6	110.8	107.4	108.2	106.9	105.7	103.3	101.5	99.9	101.7	104.1	128.0
Woolen and worsted manufactures, except dyeing and finishing.....		173.2	175.0	178.3	179.5	177.4	177.3	174.2	170.9	168.7	162.9	158.1	162.9	174.1	157.1
Hosiery.....		136.6	139.2	141.2	140.2	139.1	138.4	136.2	133.4	130.2	128.2	125.9	124.4	125.9	168.0
Knitted cloth.....		11.5	11.8	11.7	11.7	11.6	11.5	11.5	11.2	11.0	10.9	10.3	10.5	12.6	11.1
Knitted underwear and knitted gloves.....		31.4	31.0	31.6	31.5	30.6	31.3	31.4	30.8	29.6	27.9	27.0	28.0	34.8	29.7
Knitted underwear.....		48.6	50.0	50.3	49.8	49.1	48.8	47.8	46.9	45.6	45.0	43.6	43.8	44.9	40.7
Dyeing and finishing textiles, including woolen and worsted.....		87.5	88.3	88.5	88.9	87.9	87.5	85.9	85.1	83.0	81.2	80.2	83.4	80.2	70.4
Carpets and rugs, wool.....		36.9	36.6	36.6	36.2	35.7	35.4	34.4	33.6	32.9	32.4	31.9	31.9	24.5	27.0
Hats, fur-felt.....		12.9	12.7	13.7	13.7	13.7	13.8	13.6	13.6	13.2	13.3	12.8	13.1	11.0	15.4
Jute goods, except felts.....		4.2	4.3	4.1	4.2	4.0	3.1	3.0	3.0	2.9	3.0	4.1	4.2	4.2	3.8
Cordage and twine.....		16.4	16.7	17.1	17.2	16.8	16.5	16.1	15.4	14.7	14.9	14.8	15.5	18.3	12.9
Apparel and other finished textile products ¹	1,095	1,082	1,103	1,165	1,166	1,147	1,143	1,117	1,127	1,096	1,071	992	993	958	790
Men's clothing, not elsewhere classified.....		309.8	310.0	314.5	311.3	308.1	310.5	309.2	306.9	299.4	294.7	278.2	284.5	265.9	228.0
Shirts, collars, and nightwear.....		81.2	82.0	82.2	82.0	81.6	82.4	81.1	79.3	77.2	75.1	71.7	74.3	67.2	74.0
Underwear and neckwear, men's.....		18.4	18.7	19.0	18.7	18.1	18.4	18.1	17.3	17.1	16.6	15.4	16.8	16.3	17.0
Work shirts.....		18.2	17.9	17.5	16.8	15.8	15.5	15.5	15.8	15.9	15.6	14.0	14.4	18.5	14.1
Women's clothing, not elsewhere classified.....		427.6	440.0	481.7	485.3	476.2	470.5	452.1	462.3	452.1	440.4	400.2	359.1	345.3	286.1
Corsets and allied garments.....		18.5	19.2	19.9	20.1	19.7	19.6	19.4	18.8	18.1	17.5	16.9	17.7	16.5	18.9
Millinery.....		20.3	23.4	27.6	27.9	26.4	23.5	21.6	25.2	23.8	23.6	20.5	20.2	23.3	25.1
Handkerchiefs.....		5.0	5.1	5.1	5.0	4.9	5.1	5.2	5.1	5.0	4.6	4.2	4.6	5.7	5.1
Curtains, draperies, and bedspreads.....		26.8	28.0	30.6	33.8	31.6	32.2	32.1	30.9	28.7	27.3	23.2	22.5	25.2	17.8
Housefurnishings, other than curtains, etc.....		27.7	29.0	30.4	29.2	30.0	30.6	30.0	31.6	30.6	29.4	26.6	28.6	24.0	11.2
Textile bags.....		26.8	26.8	27.3	27.8	28.2	28.6	28.4	28.1	27.8	27.5	26.9	27.1	19.6	12.0
Leather and leather products ¹	374	360	372	396	402	399	400	396	393	390	385	373	370	340	347
Leather.....		44.1	44.3	45.8	46.8	46.8	46.9	46.9	46.9	46.7	46.0	45.4	45.5	46.5	50.0
Boot and shoe cut stock and findings.....		17.3	17.7	18.9	19.5	19.7	19.8	19.8	19.6	19.3	19.2	18.8	18.0	19.2	20.0
Boots and shoes.....		204.2	212.9	229.5	233.1	231.8	231.3	227.5	225.8	225.1	223.4	216.8	214.4	205.6	230.0
Leather gloves and mittens.....		12.3	12.2	12.5	12.5	12.2	13.0	13.2	13.1	12.8	12.7	11.9	12.1	15.4	10.0
Trunks and suitcases.....		13.1	13.3	13.9	14.0	13.3	14.2	14.8	14.4	13.5	12.7	11.7	12.2	13.7	8.7
Food ¹	1,259	1,086	1,047	1,149	1,159	1,191	1,255	1,288	1,353	1,483	1,442	1,311	1,192	1,056	855
Slaughtering and meat packing.....		115.7	99.7	180.9	187.0	196.7	203.7	191.7	183.0	182.0	182.9	182.3	176.4	174.0	135.0
Butter.....		37.4	35.3	32.8	32.0	32.6	32.9	33.9	34.8	35.8	37.8	38.8	38.4	33.2	20.1
Condensed and evaporated milk.....		21.6	20.5	19.3	18.8	18.4	18.6	19.5	20.5	21.2	22.7	23.5	23.5	19.9	10.0
Ice cream.....		29.2	27.1	24.4	23.6	23.6	24.9	26.3	27.8	31.1	32.8	33.4	33.1	23.0	17.0
Flour.....		37.2	37.4	37.8	38.2	39.2	39.4	39.7	39.8	39.0	39.3	39.4	37.9	32.9	27.4
Feeds, prepared.....		27.8	26.6	26.3	27.4	29.3	29.1	28.5	28.9	29.6	29.9	29.6	29.0	25.0	17.1

See footnote at end of table.

TABLE A-5: Estimated Number of Production Workers in Manufacturing Industries ¹—Continued

[In thousands]

Annual average		Industry group and industry	1948						1947						Annual average		
1943	1939		June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1943	1939
Nondurable goods—Continued																	
Food—Continued																	
28.2	20.1	Cereal preparations.....	12.8	12.2	12.1	12.4	12.1	12.1	12.8	12.8	14.0	14.2	13.1	12.2	11.4	8.4	
79.4	21.2	Baking.....	219.7	217.5	219.7	217.2	215.4	220.8	224.8	224.5	219.8	218.0	216.6	213.2	211.3	190.4	
		Sugar refining, cane.....	17.6	17.3	19.6	20.2	18.4	20.0	20.8	20.5	20.8	20.8	20.8	20.4	16.7	15.9	
37.9	18.1	Sugar, beet.....	6.5	5.4	5.6	6.5	10.6	20.9	26.2	26.3	11.9	10.5	8.1	7.1	10.1	11.6	
535	42.4	Confectionery.....	55.7	60.7	65.9	70.3	74.7	78.7	79.5	76.4	68.3	62.8	57.9	60.2	59.5	55.7	
435.8	313.3	Beverages, nonalcoholic.....	38.5	36.1	34.2	32.1	33.4	33.3	34.3	35.8	39.3	39.7	35.5	32.2	32.2	23.8	
96.2	78.1	Malt liquors.....	66.3	69.8	67.6	66.9	68.0	69.7	73.3	74.7	76.2	76.0	74.0	70.6	54.3	40.5	
		Canning and preserving.....	136.8	126.7	122.1	123.4	128.5	148.9	172.0	240.1	384.3	349.7	246.2	155.3	188.5	150.3	
366	72.0	Tobacco manufactures ¹	85	84	86	87	88	87	88	90	89	86	85	84	84	91	93
21.7	20.1	Cigarettes.....	33.1	33.2	33.2	33.5	33.6	34.2	34.0	33.4	32.6	32.9	32.9	33.3	33.9	27.4	
200.0	177.0	Cigars.....	43.7	45.2	46.2	46.2	45.8	45.6	47.8	47.0	45.5	44.5	43.0	43.1	47.5	55.8	
35.4	26.0	Tobacco (chewing and smoking) and snuff.....	7.6	7.7	7.8	7.9	7.9	8.3	8.2	8.2	8.0	8.0	7.8	7.7	9.3	10.1	
14.2	11.2	Textile and allied products ¹	389	389	389	393	392	395	398	394	392	388	387	380	388	324	265
26.4	24.0	Paper and pulp.....	201.1	200.2	200.4	199.7	199.8	199.6	197.6	196.9	197.0	196.6	194.2	194.7	160.3	137.8	
360	294	Paper goods, other.....	56.9	56.8	57.3	57.3	57.9	59.1	58.8	58.6	57.3	56.7	56.4	57.9	50.2	37.7	
99.8	71.1	Envelopes.....	12.7	12.7	12.7	12.5	12.4	12.4	12.4	12.2	12.0	11.8	11.6	11.9	10.2	8.7	
11.3	10.4	Paper bags.....	17.6	18.0	18.2	18.0	18.1	18.2	17.9	17.9	17.7	18.0	17.8	18.2	13.1	11.1	
27.1	26.0	Paper boxes.....	91.2	92.7	95.2	96.5	97.7	99.6	99.0	98.1	96.0	95.6	92.6	97.0	89.6	69.3	
52.5	36.0	Printing, publishing, and allied industries ¹	434	433	432	435	438	439	445	444	441	437	434	430	431	331	328
45.0	33.0	Newspapers and periodicals.....	146.6	145.4	144.8	144.1	143.6	145.6	145.1	144.6	144.4	143.0	142.2	142.0	113.0	118.7	
4.5	4.0	Printing, book and job.....	176.3	175.3	177.5	179.7	181.7	183.4	182.0	180.7	177.5	175.7	176.4	175.8	138.7	127.6	
11.1	8.1	Lithographing.....	30.9	31.3	31.4	31.8	32.0	32.9	33.0	32.6	32.4	32.6	31.5	32.4	25.9	26.3	
9.3	8.0	Bookbinding.....	35.1	36.0	37.2	37.4	37.6	38.3	38.7	38.5	38.2	38.3	37.0	37.5	29.4	25.8	
12.5	18.1	Chemicals and allied products ¹	572	572	580	587	588	592	589	586	576	563	562	561	734	288	
23.4	7.3	Paints, varnishes, and colors.....	50.7	50.1	50.7	51.5	50.7	50.6	50.2	49.9	49.6	49.0	48.6	50.0	38.2	28.3	
22.0	15.0	Drugs, medicines, and insecticides.....	63.7	64.2	65.2	65.6	65.7	65.9	66.4	67.1	67.1	66.2	66.7	67.8	56.0	27.5	
		Perfumes and cosmetics.....	11.0	11.2	11.6	12.1	12.0	12.9	13.9	13.5	12.6	12.1	11.7	12.0	14.1	10.4	
		Soap.....	21.7	21.8	24.9	25.4	25.5	25.5	25.8	25.3	24.7	23.9	24.0	24.3	17.9	15.3	
		Rayon and allied products.....	63.4	63.5	63.7	63.7	63.2	63.5	63.1	62.9	62.1	61.1	61.0	52.5	54.0	48.3	
		Chemicals, not elsewhere classified.....	195.6	198.0	196.3	196.5	197.7	198.1	196.4	195.0	195.1	196.3	197.7	198.8	144.5	69.9	
		Explosives and safety fuses.....	22.2	22.1	22.4	22.1	22.0	21.9	21.7	21.4	21.2	21.1	19.6	21.2	112.0	7.3	
		Compressed and liquefied gases.....	10.0	10.0	9.9	9.8	9.9	9.9	9.7	9.7	9.9	10.1	9.8	9.9	7.8	4.0	
		Ammunition, small arms.....	7.8	7.8	7.8	7.8	7.7	7.4	7.2	7.2	7.0	4.4	6.9	7.1	154.1	4.3	
		Fireworks.....	2.5	2.4	2.4	2.6	2.5	2.8	2.9	2.9	2.5	2.1	2.4	2.9	28.2	1.2	
		Cottonseed oil.....	13.6	15.2	17.6	19.5	21.7	24.4	24.5	24.0	18.3	13.1	11.6	11.9	20.4	15.3	
		Fertilizers.....	29.4	33.4	34.7	32.3	30.4	28.0	26.7	26.8	26.7	25.1	23.8	25.0	27.5	18.8	
174.1	157.7	Products of petroleum and coal ¹	170	167	164	165	163	164	165	165	166	166	165	163	125	106	
125.9	108.0	Petroleum refining.....	111.9	110.9	110.8	109.4	109.7	109.9	109.7	109.7	110.8	111.9	111.8	109.9	83.1	73.2	
12.6	11.1	Coke and byproducts.....	31.2	29.8	30.7	30.3	30.5	30.0	30.0	29.6	29.3	29.2	29.0	28.8	25.5	21.7	
34.8	29.7	Paving materials.....	2.2	2.1	1.8	1.8	2.0	2.7	3.4	3.4	3.4	3.3	2.8	2.6	2.1	2.5	
44.9	40.7	Roofing materials.....	17.2	17.4	17.4	17.6	18.0	18.3	18.5	18.4	18.4	18.2	18.2	17.7	13.1	8.1	
80.2	70.0	Rubber products ¹	195	195	198	204	208	210	212	210	208	203	203	200	207	194	121
24.5	27.0	Rubber tires and inner tubes.....	103.3	104.6	108.8	111.6	113.5	114.8	115.1	114.4	112.5	116.6	115.1	117.7	90.1	54.2	
11.0	15.0	Rubber boots and shoes.....	21.8	22.1	22.6	22.8	22.5	22.5	22.0	21.7	21.0	18.9	20.1	21.4	23.8	14.8	
4.2	3.8	Rubber goods, other.....	81.9	84.0	85.7	86.5	86.8	87.7	86.1	84.0	81.9	79.6	76.8	79.5	79.9	51.9	
18.3	12.0	Miscellaneous industries ¹	429	432	436	447	445	443	459	466	459	447	435	426	436	445	244
58	790	Instruments (professional and scientific), and fire-control equipment.....	27.5	27.6	27.7	27.7	27.7	28.1	27.8	28.0	27.7	27.5	27.5	28.1	86.7	11.3	
35.9	226.6	Photographic apparatus.....	37.8	38.4	38.8	39.0	38.9	39.2	38.8	38.7	38.2	38.3	38.3	37.4	35.5	17.7	
37.2	74.0	Optical instruments and ophthalmic goods.....	26.7	27.0	27.2	27.4	27.8	28.0	27.6	27.5	27.5	27.6	27.9	28.9	33.3	11.9	
16.3	17.0	Pianos, organs, and parts.....	13.7	13.3	14.8	15.7	16.8	17.6	17.8	17.4	16.5	14.6	14.9	15.2	12.2	7.8	
8.5	14.1	Games, toys, and dolls.....	40.2	40.3	38.5	36.3	33.5	38.5	43.4	42.3	40.9	38.6	36.1	34.8	19.1	19.1	
5.3	286.1	Buttons.....	12.8	13.1	13.8	13.4	13.3	13.4	12.7	12.1	11.6	11.4	10.7	11.8	13.1	11.2	
6.5	18.1	Fire extinguishers.....	2.7	2.7	2.6	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.9	2.9	9.3	1.0	

¹ Data are based upon reports from cooperating establishments covering both full- and part-time production and related workers who worked or received pay during the pay period ending nearest the 15th of the month. Major industry groups have been adjusted to levels indicated by Federal Security Agency data through 1946 and are not comparable with data shown in mimeographed releases dated prior to June 1948 or the Monthly Labor Review dated prior to July 1948. The estimates have been carried forward from 1946 benchmark levels, thereby providing consistent series. In the transportation equipment except automobiles group, the individual industry data are adjusted to 1939 Census of Manufactures levels. In the

tobacco manufactures group, the individual industry data are adjusted to Federal Security Agency data through 1946 and are not comparable with data published in mimeographed releases dated prior to July 1948 or the Monthly Labor Review dated prior to August 1948; the remaining industries are adjusted to data through 1945. Comparable data for all series from January 1939 are available upon request to the Bureau of Labor Statistics. Such requests should specify the series desired. Data shown for the two most recent months are subject to revision without notation. Revised data in any column other than the first three are identified by an asterisk.

TABLE A-6: Indexes of Production-Worker Employment in Manufacturing Industries¹

[1939 average = 100]

Industry group and industry	1948						1947						Annual average	
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July		June
All manufacturing ¹	158.1	155.3	156.1	160.3	159.5	160.5	161.9	160.8	160.4	160.2	157.8	153.3	154.7	177.1
Durable goods ¹	184.4	183.6	185.0	188.1	185.8	188.2	188.8	186.8	185.0	183.6	181.5	178.7	183.9	241.1
Nondurable goods ¹	137.5	133.0	133.3	138.4	138.7	138.7	140.7	140.4	141.1	141.8	139.1	133.4	131.7	127.7
Durable goods														
Iron and steel and their products ¹	162.4	161.4	161.7	164.8	164.2	164.9	164.7	163.3	162.3	161.7	161.0	158.2	160.1	177.1
Blast furnaces, steel works, and rolling mills.....	133.3	131.8	132.9	130.9	131.0	130.4	130.4	130.2	130.0	130.9	130.9	129.5	129.0	133.3
Gray-iron and semisteel castings.....	172.2	177.9	183.0	184.0	183.9	183.0	181.8	181.7	180.6	182.6	181.7	184.8	184.8	142.1
Malleable-iron castings.....	194.2	193.6	197.0	196.7	197.2	195.5	191.1	187.7	185.1	184.4	175.5	185.2	185.2	149.1
Steel castings.....	213.6	214.1	216.3	214.2	211.3	208.9	207.3	206.7	206.7	204.5	199.8	204.1	204.1	281.1
Cast-iron pipe and fittings.....	154.0	156.1	160.8	159.1	162.9	163.4	160.6	159.5	157.8	156.4	154.0	155.8	155.8	102.1
Tin cans and other tinware.....	134.9	132.4	140.0	143.8	149.1	150.3	148.3	148.0	152.3	149.8	139.4	134.5	134.5	102.1
Wire drawn from purchased rods.....	134.0	137.1	139.4	140.5	142.7	143.7	141.8	141.0	138.8	140.2	139.1	141.1	141.1	163.1
Wirework.....	135.2	137.9	142.9	139.9	143.0	139.4	133.2	133.6	135.3	132.5	128.4	131.4	131.4	106.1
Cutlery and edge tools.....	149.9	153.8	155.9	159.4	160.3	162.2	161.0	158.9	154.7	151.2	139.8	152.6	152.6	141.1
Tools, (except edge tools, machine tools, files, and saws).....	164.7	166.7	167.9	168.8	169.2	169.5	166.1	163.0	160.9	157.3	156.0	160.0	160.0	181.1
Hardware.....	145.5	148.6	152.5	151.7	149.4	147.5	143.4	141.1	138.4	135.6	137.6	140.0	140.0	127.1
Plumbers' supplies.....	149.8	150.3	153.2	152.6	152.5	152.5	150.9	147.4	146.2	146.7	146.0	148.7	148.7	95.1
Stoves, oil burners, and heating equipment, not elsewhere classified.....	161.7	158.2	169.1	175.9	180.0	184.9	186.2	185.2	183.7	175.8	168.2	171.6	171.6	122.1
Steam and hot-water heating apparatus and steam fittings.....	188.2	185.2	194.2	195.7	194.0	193.7	191.3	191.2	189.7	189.8	186.8	198.4	198.4	190.1
Stamped and enameled ware and galvanizing.....	187.4	189.6	192.8	194.6	195.2	198.0	196.8	194.9	193.9	189.1	184.6	187.4	187.4	163.1
Fabricated structural and ornamental metal-work.....	169.0	170.7	170.9	169.4	170.3	171.0	170.2	168.4	169.7	169.6	166.4	166.7	166.7	200.1
Metal doors, sash, frames, molding, and trim.....	131.4	130.6	135.4	131.2	139.3	141.0	138.3	135.8	132.8	130.6	123.8	121.8	121.8	164.1
Bolts, nuts, washers, and rivets.....	187.8	189.8	190.0	188.2	188.4	187.4	186.5	182.3	185.6	186.6	182.1	186.9	186.9	207.1
Forgings, iron and steel.....	214.2	223.9	228.8	229.5	231.0	228.3	225.0	223.8	221.6	221.0	219.0	223.1	223.1	266.1
Wrought pipe, welded and heavy-riveted.....	211.0	210.8	215.5	214.6	222.5	219.7	212.5	206.6	200.0	198.6	193.8	191.3	191.3	318.1
Screw-machine products and wood screws.....	202.1	204.4	203.9	203.2	200.1	198.7	196.8	196.4	195.9	196.3	199.6	207.0	207.0	298.1
Steel barrels, kegs, and drums.....	117.7	119.5	121.9	125.5	130.3	126.4	123.5	123.8	127.3	128.4	129.1	127.1	127.1	131.1
Firearms.....	397.9	395.1	390.0	383.9	375.4	369.8	361.6	357.4	347.6	343.3	362.2	357.4	357.4	1346.1
Electrical machinery ¹	210.8	211.6	217.4	222.9	225.4	227.0	230.2	229.7	226.9	223.0	219.6	218.9	225.5	285.1
Electrical equipment.....	195.7	199.8	203.5	206.1	207.2	209.2	208.2	206.5	204.6	201.6	201.9	207.1	207.1	272.1
Radio and phonographs.....	204.6	212.2	221.9	225.5	228.0	238.2	241.7	237.0	226.3	220.0	212.1	223.5	223.5	282.1
Communication equipment.....	277.3	289.3	297.4	299.3	302.4	302.7	300.3	294.6	288.3	287.3	289.5	299.7	299.7	367.1
Machinery, except electrical ¹	230.4	228.5	227.4	233.1	234.0	233.0	233.8	230.5	229.7	228.8	226.8	221.7	228.5	244.1
Machinery and machine-shop products.....	235.8	238.8	240.9	242.2	240.9	240.3	239.5	240.2	240.2	238.4	236.4	241.4	241.4	282.1
Engines and turbines.....	286.7	289.1	293.3	291.6	292.9	292.4	283.9	285.8	286.6	287.0	284.6	284.9	284.9	426.1
Tractors.....	180.1	143.4	198.8	197.9	196.4	192.8	187.5	185.3	182.5	178.0	181.7	182.2	182.2	167.1
Agricultural machinery, excluding tractors.....	263.7	267.0	266.1	261.6	253.5	248.8	238.4	236.6	236.9	232.8	225.7	236.4	236.4	158.1
Machine tools.....	129.7	130.4	134.5	137.6	137.6	140.2	139.5	142.4	142.9	143.2	138.2	147.2	147.2	299.1
Machine-tool accessories.....	214.4	214.8	216.6	218.0	218.6	218.1	216.2	215.3	216.8	218.5	214.4	228.9	228.9	408.1
Textile machinery.....	188.8	188.3	187.6	186.2	185.8	185.3	181.9	179.3	170.5	166.1	166.3	177.9	177.9	130.1
Pumps and pumping equipment.....	278.7	280.9	286.8	293.5	293.9	292.7	290.3	290.5	297.3	294.7	298.0	309.7	309.7	372.1
Typewriters.....	147.0	148.7	153.5	154.9	158.8	159.5	155.5	152.7	149.4	145.8	89.2	112.8	112.8	73.1
Cash registers; adding and calculating machines.....	231.8	235.2	234.2	233.4	230.2	229.4	224.1	218.5	213.9	208.3	192.5	193.4	193.4	177.1
Washing machines, wringers, and driers, domestic.....	214.6	217.0	218.4	221.1	216.8	218.1	211.2	205.1	200.1	202.2	195.5	200.3	200.3	178.1
Sewing machines, domestic and industrial.....	177.2	175.9	174.8	172.5	171.0	170.1	165.7	160.2	154.6	153.7	152.9	137.3	137.3	136.1
Refrigerators and refrigeration equipment.....	235.0	226.7	230.4	232.2	234.9	231.8	227.7	226.6	225.0	223.7	219.6	224.4	224.4	154.1
Transportation equipment, except automobiles ¹	273.7	276.0	290.9	292.7	292.6	297.3	291.6	284.6	269.2	260.7	255.0	253.7	297.5	1580.1
Locomotives.....	407.7	410.5	411.3	409.1	406.7	406.2	402.0	400.5	388.1	377.2	368.0	376.0	376.0	526.1
Cars, electric- and steam-railroad.....	219.6	219.7	221.8	220.2	228.0	231.8	231.4	225.2	225.7	222.8	224.8	223.9	246.3	246.3
Aircraft and parts, excluding aircraft engines.....	315.3	346.0	342.9	341.1	339.5	335.8	336.2	337.4	327.0	329.3	326.0	337.4	337.4	2003.1
Aircraft engines.....	282.4	278.4	276.9	280.1	284.0	291.0	291.0	294.8	299.2	299.9	301.1	302.5	302.5	2625.1
Shipbuilding and boatbuilding.....	167.6	176.8	181.6	184.4	191.9	181.5	169.9	144.7	134.3	125.8	126.6	202.7	1709.4	1709.4
Motorcycles, bicycles, and parts.....	185.2	206.0	211.7	209.4	207.6	210.1	207.0	201.8	200.0	195.3	186.0	190.8	190.8	143.1
Automobiles ¹	183.2	188.6	191.9	195.0	178.9	202.6	195.2	190.4	190.0	190.5	184.1	187.3	188.5	177.1
Nonferrous metals and their products ¹	173.8	173.7	176.9	180.0	178.5	178.4	180.3	178.8	176.3	174.7	172.8	171.4	178.0	196.1
Smelting and refining, primary, of nonferrous metals.....	149.8	148.4	147.8	145.4	144.5	144.6	143.7	143.9	144.0	144.4	147.7	146.2	204.3	204.3
Alloying; and rolling and drawing of nonferrous metals, except aluminum.....	135.6	138.3	140.6	136.9	138.2	137.5	136.3	136.6	136.9	137.6	140.0	148.4	195.2	195.2
Clocks and watches.....	139.1	140.7	141.9	141.1	140.8	140.8	139.9	138.6	137.0	134.2	122.4	135.7	124.2	124.2
Jewelry (precious metals) and jewelers' findings.....	182.3	187.6	191.0	190.4	189.3	191.6	194.6	190.2	182.9	177.0	171.0	175.5	141.5	141.5
Silverware and plated ware.....	224.2	226.8	226.5	223.1	221.0	223.5	218.8	215.3	210.2	205.7	195.5	200.5	124.5	124.5
Lighting equipment.....	147.7	152.7	161.7	165.4	164.1	166.6	167.3	170.2	171.7	172.3	177.7	180.9	137.8	137.8
Aluminum manufactures.....	181.5	187.7	192.1	192.0	192.2	190.1	185.4	183.0	179.9	174.0	170.0	185.2	337.4	337.4
Sheet-metal work, not elsewhere classified.....	187.8	192.0	196.4	196.9	199.0	209.9	209.1	207.1	200.3	200.8	200.7	205.8	201.9	201.9
Lumber and timber basic products ¹	190.0	182.8	178.7	178.3	175.0	175.6	178.4	178.5	178.6	177.3	177.3	171.5	172.9	127.1
Sawmills and logging camps.....	175.1	171.1	171.1	167.9	169.4	173.6	174.5	175.4	175.2	175.8	169.4	170.5	139.0	139.0
Planing and plywood mills.....	172.1	171.1	171.1	170.1	170.2	168.8	167.4	164.1	161.9	160.7	160.0	162.6	125.4	125.4

¹ See footnote 1, table A-5.

TABLE A-6: Indexes of Production-Worker Employment in Manufacturing Industries¹—Continued

[1939 average=100]

		1948						1947						Annual average	
Industry group and industry		June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1943
Durable goods—Continued															
Furniture and finished lumber products ¹		139.8	139.7	143.4	147.8	149.2	149.1	148.3	147.1	144.8	141.9	140.1	135.7	137.7	111.7
Mattresses and bedsprings.....		152.0	159.4	168.8	176.7	177.1	175.8	174.9	170.3	162.3	153.5	139.2	145.7	105.9	112.4
Furniture.....		131.1	134.7	138.8	140.2	139.8	138.7	136.9	134.1	131.0	129.4	125.9	127.6	127.6	125.0
Wooden boxes, other than cigar.....		114.8	119.3	122.2	124.3	125.3	122.7	124.6	127.1	126.3	125.6	123.8	127.6	127.6	102.4
Caskets and other morticians' goods.....		133.5	136.4	140.6	139.6	141.4	142.2	141.5	139.6	140.6	139.2	137.4	138.1	138.1	98.7
Wood preserving.....		123.1	120.5	124.3	124.8	131.1	134.8	138.8	142.4	145.1	150.4	149.4	147.9	147.9	107.4
Wood, turned and shaped.....		130.5	133.4	136.2	133.7	131.1	133.4	132.1	128.5	127.9	128.2	123.0	122.9	122.9	122.5
Stone, clay, and glass products ¹		156.0	154.7	153.7	153.9	150.9	151.6	154.7	154.0	152.8	152.3	151.2	146.5	150.4	139.9
Glass and glassware.....		164.7	165.2	165.2	161.3	164.3	167.8	168.4	168.2	166.7	165.7	158.5	168.6	168.6	113.1
Glass products made from purchased glass.....		122.2	123.4	124.8	123.8	125.0	127.1	125.8	122.0	120.1	120.2	123.5	124.3	124.3	111.5
Cement.....		152.2	150.5	149.4	150.3	149.1	150.5	151.0	151.1	152.1	151.1	146.5	145.0	145.0	90.5
Brick, tile, and terra cotta.....		133.8	131.1	130.1	126.9	131.4	131.4	130.6	130.2	129.8	129.4	126.3	125.8	125.8	132.9
Pottery and related products.....		168.9	167.2	170.2	166.9	166.0	170.3	169.0	166.0	165.2	165.9	160.4	164.1	164.1	91.2
Gypsum.....		132.3	132.8	134.3	133.8	132.7	134.6	132.4	128.7	124.2	123.5	124.2	121.7	121.7	137.2
Wallboard, plaster (except gypsum), and mineral wool.....		153.6	153.5	153.1	154.1	155.7	156.9	156.4	151.2	149.4	145.3	141.3	137.6	137.6	98.7
Lime.....		100.8	101.6	100.0	98.0	97.8	98.6	99.9	95.8	97.0	97.0	98.0	98.6	98.6	67.4
Marble, granite, slate, and other products.....		98.2	96.6	99.3	96.5	97.5	99.0	100.1	99.2	99.9	99.4	90.5	88.9	88.9	302.2
Abrasives.....		226.0	226.3	226.4	221.0	178.0	217.6	213.7	213.8	217.9	208.8	220.0	242.2	242.2	138.2
Asbestos products.....		137.1	137.5	138.2	137.4	137.8	136.3	134.1	134.4	132.0	129.9	122.7	130.2	130.2	108.2
Nondurable goods															
Textile-mill products and other fiber manufactures ¹		113.2	113.0	113.7	114.7	114.2	113.0	112.7	111.1	109.2	106.9	105.1	103.8	105.6	125.8
Cotton manufactures, except smallwares.....		125.4	125.8	126.6	125.6	125.2	125.1	123.6	121.5	119.3	118.1	117.7	119.9	119.9	126.6
Cotton smallwares.....		102.3	103.6	105.8	105.8	103.8	101.8	98.6	97.2	95.2	93.3	93.3	97.2	97.2	82.2
Silk and rayon goods.....		88.3	88.2	88.1	87.6	84.9	85.5	84.4	83.5	81.6	80.2	79.0	80.3	80.3	110.4
Woolen and worsted manufactures, except dyeing and finishing.....		109.9	111.0	113.1	113.9	112.5	112.4	110.5	108.4	107.0	103.3	100.3	103.3	103.3	74.9
Hosiery.....		81.3	82.8	84.1	83.5	82.8	82.3	81.1	79.4	77.5	76.3	74.9	74.0	74.0	109.4
Knitted cloth.....		99.4	101.9	101.4	101.8	100.4	99.9	99.4	97.1	95.2	94.2	89.6	91.1	109.4	117.2
Knitted underwear and knitted gloves.....		105.8	104.4	106.4	106.0	102.9	105.5	103.5	99.5	99.5	94.0	90.7	94.2	94.2	110.4
Knitted underwear.....		119.3	122.7	123.5	122.2	120.6	120.0	117.5	115.3	111.9	110.5	107.0	107.5	107.5	113.6
Dyeing and finishing textiles, including woolen and worsted.....		123.9	125.0	125.2	125.8	124.4	123.8	121.6	120.5	117.6	114.9	113.5	118.0	118.0	90.8
Carpets and rugs, wool.....		136.4	135.4	135.5	134.0	132.2	130.9	127.1	124.4	121.7	119.7	117.9	118.2	118.2	71.3
Hats, fur-felt.....		84.2	82.7	89.3	89.0	89.1	89.7	88.5	88.4	85.8	86.3	83.3	85.0	85.0	110.6
Jute goods, except felts.....		112.0	112.8	109.3	110.3	105.1	80.6	79.4	79.5	76.6	78.1	107.5	111.0	111.0	143.4
Cordage and twine.....		128.7	130.9	134.1	134.7	131.6	128.8	125.7	120.4	115.3	116.5	116.0	121.1	121.1	121.4
Apparel and other finished textile products ¹		138.6	137.1	139.8	147.5	147.7	145.3	144.8	141.5	142.7	138.9	135.6	125.7	125.7	115.8
Men's clothing, not elsewhere classified.....		134.9	135.0	137.0	135.5	134.2	135.2	134.7	133.6	130.4	128.3	121.1	123.9	123.9	90.9
Shirts, collars, and nightwear.....		109.8	110.9	111.2	110.8	110.4	111.4	109.7	107.2	104.4	101.6	96.9	100.5	100.5	96.3
Underwear and neckwear, men's.....		108.6	110.4	112.0	110.3	106.6	108.8	106.5	102.3	101.1	97.9	91.0	99.2	99.2	131.3
Work shirts.....		129.2	126.4	123.8	119.0	112.0	109.8	109.4	112.1	112.4	110.7	99.1	102.1	102.1	120.6
Women's clothing, not elsewhere classified.....		149.4	153.7	168.3	169.5	166.4	164.4	158.0	161.5	158.0	153.9	139.8	135.9	135.9	88.1
Corsets and allied garments.....		98.8	102.4	106.1	107.0	104.9	104.4	103.3	100.2	96.5	93.4	90.1	94.2	94.2	91.5
Millinery.....		79.5	91.8	108.3	109.2	103.4	92.0	84.7	98.9	93.4	92.6	80.4	79.3	79.3	113.1
Handkerchiefs.....		99.2	99.8	99.6	97.9	95.7	101.1	102.2	100.9	98.3	90.6	82.9	90.8	90.8	141.9
Curtains, draperies, and bedspreads.....		150.6	157.7	172.1	190.5	178.0	181.3	180.9	173.7	161.4	153.9	130.4	126.9	126.9	214.9
Housefurnishings, other than curtains, etc.....		248.0	259.8	272.0	261.5	268.6	274.3	268.7	263.4	274.0	263.5	238.2	256.2	256.2	155.7
Textile bags.....		212.8	212.4	216.9	220.2	223.7	226.8	225.3	222.6	220.1	216.5	213.0	214.6	214.6	98.1
Leather and leather products ¹		107.8	103.7	107.1	114.1	115.8	114.9	115.3	114.1	113.2	112.2	111.1	107.5	106.6	92.9
Leather.....		88.2	88.5	91.6	93.6	93.5	93.8	93.7	93.7	93.3	91.9	90.7	91.0	91.0	96.0
Boot and shoe cut stock and findings.....		86.5	88.7	94.7	97.8	98.8	99.4	99.0	98.1	96.9	96.3	94.4	90.1	90.1	89.0
Boots and shoes.....		88.5	92.2	99.4	101.0	100.4	100.2	98.5	97.8	97.5	96.7	93.9	92.9	92.9	153.7
Leather gloves and mittens.....		123.5	121.9	125.4	124.9	121.9	130.1	131.8	131.5	128.1	126.8	118.9	121.0	121.0	161.2
Trunks and suitcases.....		157.9	160.1	166.4	168.6	159.3	170.1	177.9	172.5	162.6	153.1	141.0	147.0	147.0	123.5
Food ¹		147.4	127.1	122.6	134.5	135.6	139.3	146.9	150.7	158.3	173.6	168.8	153.4	139.5	128.9
Slaughtering and meat packing.....		85.7	73.9	134.0	138.5	145.7	150.8	142.0	135.5	134.7	135.5	135.0	130.6	130.6	165.2
Butter.....		186.0	175.3	162.8	158.8	162.0	163.6	168.2	172.9	178.0	188.0	192.7	190.9	190.9	182.6
Condensed and evaporated milk.....		198.3	188.3	177.2	172.5	169.3	170.6	179.7	188.9	194.5	208.8	216.3	216.3	216.3	130.7
Ice cream.....		166.0	153.9	138.5	133.8	133.7	141.4	149.1	157.8	176.8	185.9	189.4	187.8	187.8	118.5
Flour.....		133.9	134.7	136.0	137.5	141.3	141.9	143.1	143.3	140.4	141.6	142.0	136.4	136.4	145.0
Feeds, prepared.....		160.7	153.9	152.0	158.7	160.4	168.4	165.3	167.7	171.2	173.1	171.4	168.0	168.0	136.0
Cereal preparations.....		152.6	146.4	144.7	147.8	145.0	144.3	153.7	153.6	168.0	169.7	156.5	146.2	146.2	111.0
Baking.....		115.4	114.3	115.4	114.1	113.1	116.0	118.1	117.9	115.5	114.5	113.7	112.0	112.0	105.1
Sugar refining, cane.....		111.0	109.2	123.2	127.2	116.2	126.2	131.1	129.0	131.3	131.2	130.9	128.3	128.3	86.8
Sugar, beet.....		55.8	46.9	48.4	56.3	91.5	179.7	225.5	226.4	102.9	90.2	69.7	61.6	61.6	106.7
Confectionery.....		100.0	109.0	118.3	126.2	134.1	141.2	142.7	137.2	122.6	112.8	103.9	108.0	108.0	135.1
Beverages, nonalcoholic.....		161.7	151.3	143.6	134.9	140.1	139.7	143.8	150.4	164.9	166.4	149.1	135.0	135.0	134.1
Malt liquor.....		163.9	172.4	167.0	165.5	168.2	172.4	181.3	184.6	188.4	187.9	182.8	174.6	174.6	125.4
Canning and preserving.....		91.0	84.3	81.2	82.1	85.5	99.1	114.4	159.8	255.7	232.7	163.8	103.3	103.3	97.2
Tobacco manufactures ¹		90.6	90.5	92.4	93.4	93.9	93.6	94.4	96.5	95.10					

See footnote 1, table A-5.

TABLE A-6: Indexes of Production-Worker Employment in Manufacturing Industries ¹—Continued

[1939 average=100]

Industry group and industry	1948						1947						Annual average	
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July		June
Nondurable goods—Continued														
Paper and allied products ¹	146.7	146.4	146.8	148.0	147.8	148.7	149.9	148.6	147.8	146.2	145.7	143.3	146.1	122.2
Paper and pulp.....	146.0	145.3	145.5	144.9	145.0	144.8	144.8	143.4	142.9	142.9	142.7	140.9	141.3	116.3
Paper goods, other.....	150.7	150.4	152.0	151.9	153.6	156.6	155.9	155.3	151.9	150.3	149.5	153.6	153.6	133.1
Envelopes.....	145.5	145.6	145.7	143.9	142.0	142.6	142.5	140.6	137.4	136.0	132.7	136.6	136.6	116.9
Paper bags.....	158.2	162.3	164.1	162.0	163.2	163.9	161.3	160.7	159.2	161.6	160.5	164.0	164.0	118.0
Paper boxes.....	131.6	133.7	137.3	139.1	140.8	143.7	142.7	141.5	138.5	137.9	133.6	139.9	139.9	129.3
Printing, publishing, and allied industries ¹	132.3	132.2	131.8	132.8	133.5	134.0	135.7	135.4	134.6	133.2	132.3	131.2	131.5	100.8
Newspapers and periodicals.....	123.5	122.5	122.0	121.4	121.0	122.7	122.2	121.8	121.7	120.5	119.8	119.7	119.7	95.2
Printing; book and job.....	138.1	137.4	139.1	140.8	142.3	143.7	142.6	141.6	139.1	137.7	138.2	137.8	137.8	108.7
Lithographing.....	117.5	119.0	119.5	121.2	121.7	125.3	125.8	124.2	123.4	124.0	119.8	123.3	123.3	96.3
Bookbinding.....	136.4	139.5	144.5	145.1	145.9	148.8	150.3	149.3	148.1	148.7	143.6	145.6	145.6	114.1
Chemicals and allied products ¹	198.4	198.4	201.4	203.6	204.2	204.1	205.4	204.5	203.2	199.9	195.3	195.0	194.6	254.5
Paints, varnishes, and colors.....	179.4	177.1	179.4	182.1	179.3	178.9	177.7	176.5	175.4	173.4	171.9	176.7	176.7	135.1
Drugs, medicines, and insecticides.....	231.2	233.2	236.9	238.3	238.5	239.2	241.3	243.7	243.6	240.5	242.1	246.4	246.4	203.6
Perfumes and cosmetics.....	105.2	107.6	111.2	116.2	115.4	123.6	133.1	129.9	121.3	116.5	112.2	115.5	115.5	135.8
Soap.....	142.2	142.9	163.1	166.3	167.0	167.4	168.9	165.7	161.7	157.0	157.2	159.4	159.4	117.1
Rayon and allied products.....	131.2	131.4	131.8	131.8	130.8	131.4	130.5	130.1	128.4	126.4	126.1	108.6	108.6	111.7
Chemicals, not elsewhere classified.....	279.8	283.2	280.8	281.0	282.8	283.3	280.9	278.9	279.0	280.8	282.8	284.3	284.3	206.7
Explosives and safety fuses.....	304.7	303.7	306.8	303.3	301.3	300.7	298.0	293.6	291.4	290.1	269.1	290.3	290.3	1536.9
Compressed and liquefied gases.....	250.9	252.4	250.1	246.2	249.9	248.8	244.9	243.5	249.0	253.2	246.8	248.8	248.8	197.3
Ammunition, small-arms.....	181.6	182.5	182.8	182.2	178.7	172.7	168.7	167.2	163.5	103.8	160.9	164.6	164.6	336.4
Fireworks.....	218.9	209.3	203.9	221.8	213.4	243.5	249.0	249.9	214.0	177.5	207.6	249.8	249.8	2426.3
Cottonseed oil.....	89.1	90.5	115.0	127.7	142.1	159.5	160.5	157.2	119.8	85.9	76.0	77.7	77.7	133.4
Fertilizers.....	156.1	177.4	184.4	171.5	161.3	148.7	141.6	142.1	142.0	133.4	126.2	132.6	132.6	146.2
Products of petroleum and coal ¹	160.4	157.3	154.9	155.4	153.9	155.0	155.5	156.1	155.8	156.4	157.0	156.2	153.5	117.6
Petroleum refining.....	152.8	151.5	151.3	149.5	149.9	150.1	149.8	149.8	151.4	152.8	152.6	150.1	150.1	113.4
Coke and byproducts.....	143.6	137.3	141.4	139.6	140.6	138.3	138.2	136.5	135.1	134.7	133.7	133.0	133.0	117.4
Paving materials.....	91.4	87.4	75.3	73.2	83.2	109.4	138.1	137.4	140.0	133.9	114.0	106.3	106.3	87.0
Roofing materials.....	213.0	214.6	215.3	217.5	222.7	226.2	228.0	227.7	226.8	224.9	225.3	218.0	218.0	161.2
Rubber products ¹	161.4	160.8	163.8	168.9	172.0	173.5	175.3	174.0	171.7	168.1	167.9	165.1	170.9	160.3
Rubber tires and inner tubes.....	190.4	192.9	200.7	205.8	209.2	211.7	212.2	211.0	207.5	214.9	212.3	217.0	217.0	166.1
Rubber boots and shoes.....	146.8	149.0	152.4	153.8	151.5	151.4	147.9	146.1	141.6	127.2	135.1	143.9	143.9	160.5
Rubber goods, other.....	158.0	161.9	165.3	166.9	167.4	169.1	166.0	162.0	157.8	153.5	148.0	153.2	154.1	134.1
Miscellaneous industries ¹	176.6	178.4	182.6	181.9	180.9	187.5	190.4	187.5	182.8	177.7	174.1	178.4	181.7	181.7
Instruments (professional and scientific), and fire-control equipment.....	242.8	244.1	244.6	245.2	245.3	248.1	246.1	247.4	245.0	243.4	243.1	248.1	248.1	796.4
Photographic apparatus.....	214.1	217.1	219.8	220.9	220.4	221.8	219.5	218.8	216.1	216.5	217.0	211.3	211.3	200.9
Optical instruments and ophthalmic goods.....	224.1	226.9	229.1	230.0	233.6	235.4	232.1	231.6	231.6	231.8	234.6	242.7	242.7	280.1
Pianos, organs, and parts.....	175.2	170.5	189.7	201.5	215.2	226.3	228.6	223.8	211.4	187.2	191.6	195.1	195.1	136.2
Games, toys, and dolls.....	210.3	210.7	201.2	189.9	175.0	201.3	226.9	221.4	213.9	202.1	188.8	182.0	182.0	99.7
Buttons.....	114.2	116.3	122.6	119.4	118.7	119.1	113.0	107.7	103.4	101.9	95.4	104.7	104.7	116.6
Fire extinguishers.....	200.9	206.8	258.6	249.3	253.5	268.0	269.5	273.2	277.6	277.3	284.9	289.0	289.0	913.1

¹ See footnote 1, table A-5.TABLE A-7: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries ¹

[1939 average=100]

Industry group and industry	1948						1947							Annual average
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1946
All manufacturing ¹	359.2	345.9	346.7	358.4	354.1	358.7	365.7	353.4	350.1	345.3	331.5	321.8	327.2	334.4
Durable goods ¹	401.3	389.5	392.7	402.0	393.1	403.1	411.0	395.0	389.9	282.2	366.8	359.4	375.5	469.1
Nondurable goods ¹	318.0	303.2	301.8	315.7	316.0	315.3	321.4	312.8	311.2	309.2	297.0	285.1	280.0	302.1
<i>Durable goods</i>														
Iron and steel and their products ¹	340.5	334.4	329.6	340.8	337.6	341.9	345.8	335.1	331.6	327.7	316.8	307.2	319.2	311.4
Blast furnaces, steel works, and rolling mills.....	265.4	253.0	260.9	257.5	261.2	257.8	255.1	251.9	254.5	254.2	237.6	249.1	249.1	222.1
Gray-iron and semisteel castings.....	374.3	394.6	421.7	414.9	416.4	420.7	399.3	406.7	403.0	384.1	396.3	411.8	411.8	281.1
Malleable-iron castings.....	460.3	453.0	469.7	467.6	480.1	479.8	459.6	448.7	425.9	392.1	397.2	414.7	414.7	278.9
Steel castings.....	454.2	453.2	456.8	442.3	442.1	443.3	429.5	423.1	414.2	396.9	398.7	406.6	406.6	403.1
Cast-iron pipe and fittings.....	373.9	360.5	385.2	375.4	394.4	404.0	381.4	382.3	366.6	352.5	365.6	392.8	392.8	177.2
Tin cans and other tinware.....	286.1	274.9	289.8	302.4	320.0	336.7	320.7	331.9	349.2	334.9	297.6	265.9	265.9	161.4
Wire drawn from purchased rods.....	249.8	255.3	269.1	268.7	271.6	280.3	270.1	267.6	259.5	254.3	240.4	265.9	265.9	253.1
Wirework.....	298.2	302.0	316.4	309.0	320.5	321.9	297.4	289.0	290.1	271.6	264.0	272.5	272.5	202.4
Cutlery and edge tools.....	357.8	364.6	370.6	377.2	381.9	386.3	384.1	372.2	359.1	333.3	314.2	352.9	352.9	278.1

¹ See footnote 1, table A-5.

TABLE A-7: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries¹—Con

[1939 average=100]

June 1948	Annual average	Industry group and industry	1948						1947						Annual average
			June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June 1943
		Durable goods—Continued													
		Iron and steel and their products ¹ —Continued													
		Tools (except edge tools, machine tools, files, and saws)		366.6	372.4	378.4	379.0	381.0	381.0	363.0	352.6	347.9	329.6	318.1	334.1
		Hardware		325.8	342.2	355.1	353.5	352.5	345.9	328.7	321.2	308.4	291.8	300.2	245.8
		Plumbers' supplies		324.0	322.2	329.0	320.3	321.8	331.9	324.1	306.8	291.6	278.6	291.4	161.7
		Stoves, oil burners, and heating equipment, not elsewhere classified		352.5	345.4	368.6	387.2	395.8	422.7	404.5	417.6	399.3	355.9	346.6	210.9
		Steam and hot-water heating apparatus and steam fittings		406.0	393.8	416.5	425.1	403.7	430.9	419.4	403.0	394.1	365.8	373.8	360.6
		Stamped and enameled ware and galvanizing		440.6	439.8	447.0	447.4	456.0	472.8	453.7	445.2	437.1	415.0	402.9	307.0
		Fabricated structural and ornamental metal-work		345.7	340.6	343.4	335.4	339.7	360.1	350.5	347.7	339.4	339.3	320.1	328.2
		Metal doors, sash, frames, molding, and trim		288.6	283.9	292.2	276.9	296.7	313.2	298.1	290.0	280.3	266.4	244.5	292.6
		Bolts, nuts, washers, and rivets		408.2	416.7	422.4	406.0	393.1	406.0	391.5	386.0	369.4	367.3	355.1	383.0
		Forgings, iron and steel		443.7	467.6	487.5	496.2	502.4	506.9	484.8	485.5	456.3	419.0	427.2	507.9
		Wrought pipe, welded and heavy-riveted		443.1	437.7	455.3	433.2	457.2	472.7	443.1	427.3	396.6	388.7	387.8	610.9
		Screw-machine products and wood screws		445.4	452.0	456.5	452.1	446.1	442.9	421.7	424.3	413.4	402.6	414.5	560.4
		Steel barrels, kegs, and drums		302.6	298.1	302.0	300.5	333.7	334.0	308.6	299.6	325.6	317.6	317.2	247.0
		Firearms		915.6	906.0	911.3	872.2	846.7	835.0	796.1	780.3	766.9	734.8	776.8	2934.8
		Electrical machinery¹	438.2	431.6	444.3	459.1	465.1	471.0	481.2	471.9	464.6	450.5	428.1	430.0	488.0
		Electrical equipment		398.1	408.1	419.6	424.0	430.6	434.3	423.9	417.8	411.0	393.7	396.3	475.6
		Radio and phonographs		451.4	468.5	488.4	495.6	507.3	542.9	539.6	533.2	501.9	459.7	460.8	505.0
		Communication equipment		530.0	551.2	578.6	593.7	586.4	604.6	597.8	584.5	551.1	523.8	521.3	538.2
		Machinery, except electrical¹	480.7	466.4	463.8	475.2	471.9	473.8	479.9	459.6	458.0	451.4	434.5	427.4	443.0
		Machinery and machine-shop products		491.0	493.6	496.4	495.5	494.9	500.7	481.5	480.0	477.9	462.1	456.2	501.8
		Engines and turbines		617.6	611.7	632.3	622.1	625.5	607.4	601.9	576.0	591.3	597.2	578.6	849.4
		Tractors		285.2	248.9	353.8	351.9	354.3	347.0	336.9	333.1	322.2	306.5	314.2	256.7
		Agricultural machinery, excluding tractors		571.2	571.9	576.8	550.5	534.9	522.7	482.5	504.6	494.1	471.5	462.8	475.4
		Machine tools		240.7	240.2	249.2	254.4	250.1	262.2	253.3	257.5	257.4	253.6	242.3	264.8
		Machine-tool accessories		389.9	392.6	388.9	398.0	398.6	397.7	380.2	379.0	380.5	362.9	361.7	671.1
		Textile machinery		439.4	436.0	437.8	420.9	417.9	412.2	396.3	381.7	366.0	330.2	348.9	230.1
		Pumps and pumping equipment		610.3	610.0	617.7	627.0	622.0	628.1	607.7	611.1	627.1	609.6	614.1	761.8
		Typewriters		325.0	336.8	347.5	357.6	366.1	369.6	358.2	342.3	321.6	309.6	186.9	237.3
		Cash registers, adding, and calculating machines		489.4	504.7	499.9	489.0	491.9	490.7	463.5	455.8	441.9	405.2	378.0	341.6
		Washing machines, wringers, and driers, domestic		454.2	465.3	454.0	470.4	464.3	484.2	449.7	430.5	400.0	393.3	395.5	407.6
		Sewing machines, domestic and industrial		428.0	409.9	414.5	404.0	397.9	398.8	382.1	369.9	348.2	323.2	331.1	299.9
		Refrigerators and refrigeration equipment		472.8	450.4	454.7	433.7	479.2	465.9	434.3	446.6	426.6	408.7	426.3	204.5
		Transportation equipment, except automobiles¹	561.2	566.4	601.4	600.4	593.3	611.2	600.2	555.1	541.5	509.8	492.4	492.5	3080.3
		Locomotives		916.4	928.1	908.6	869.2	883.0	900.3	863.1	870.1	875.3	811.9	760.3	1107.3
		Cars, electric and steam-railroad		478.5	483.8	490.3	479.5	500.6	522.4	503.5	493.6	468.8	436.3	482.1	471.1
		Aircraft and parts, excluding aircraft engines		634.2	695.2	675.9	667.3	657.4	668.7	653.8	663.8	623.3	637.6	622.4	3496.3
		Aircraft engines		493.5	481.0	473.9	469.4	482.9	503.5	479.2	499.9	501.3	486.7	485.1	4528.7
		Shipbuilding and boatbuilding		345.7	373.6	383.7	385.4	416.7	378.9	318.6	289.9	262.0	241.8	243.1	394.3
		Motorcycles, bicycles, and parts		370.5	418.2	426.6	420.6	414.5	448.2	441.3	430.8	404.9	392.8	379.4	253.6
		Automobiles¹	380.9	357.6	386.2	396.5	357.6	408.7	427.7	395.6	385.8	380.6	345.1	355.3	321.2
		Nonferrous metals and their products¹	368.1	363.4	368.3	377.1	372.9	372.7	377.8	367.3	359.3	349.5	335.3	332.1	354.5
		Smelting and refining, primary, of nonferrous metals		321.6	314.1	307.2	303.7	303.1	299.9	300.3	296.0	302.5	292.4	299.4	298.8
		Alloying and rolling and drawing of nonferrous metals, except aluminum		268.9	271.7	283.5	273.2	273.4	271.9	263.7	260.6	257.6	250.9	262.7	282.1
		Clocks and watches		326.2	336.8	339.1	333.4	326.2	333.3	330.5	320.1	311.7	293.1	264.3	302.0
		Jewelry (precious metals) and jewelers' findings		361.0	377.7	391.8	396.2	383.4	415.6	403.6	393.4	360.2	321.2	297.0	211.8
		Silverware and plated ware		522.4	529.4	543.3	525.6	520.5	535.5	507.4	496.2	480.6	441.7	431.0	212.8
		Lighting equipment		303.5	308.3	328.4	333.7	337.8	343.0	333.9	333.8	325.9	318.5	320.4	240.4
		Aluminum manufactures		347.0	356.8	362.0	366.8	371.3	364.7	351.7	345.5	325.5	311.8	301.6	591.6
		Sheet-metal work, not elsewhere classified		413.2	417.8	433.0	429.7	436.8	459.8	438.0	441.6	419.0	420.0	417.6	357.6
		Lumber and timber basic products¹	497.9	452.6	425.2	427.6	417.2	413.5	431.8	429.1	427.2	427.4	429.7	394.2	215.1
		Sawmills and logging camps		435.5	405.2	412.4	401.1	400.3	422.0	425.3	425.2	430.5	435.3	397.4	238.3
		Planing and plywood mills		421.0	412.9	403.8	402.5	398.7	403.6	385.5	381.2	368.1	365.8	345.1	197.8
		Furniture and finished lumber products¹	326.0	325.6	333.0	349.2	350.2	352.2	355.7	343.0	338.8	324.3	311.6	298.6	183.9
		Mattresses and bedsprings		316.2	336.4	363.2	385.0	388.3	395.0	372.6	378.7	356.0	323.0	287.3	165.7
		Furniture		307.2	314.6	330.9	333.6	333.4	334.3	323.2	315.0	297.9	284.7	274.4	185.3
		Wooden boxes, other than cigar		281.5	286.4	300.1	292.2	304.2	312.1	301.9	308.8	305.0	304.7	301.8	215.8
		Caskets and other morticians' goods		270.3	281.0	295.6	291.0	294.9	299.6	287.3	281.4	283.4	271.6	260.6	159.3
		Wood preserving		333.5	316.1	310.5	292.1	330.4	347.2	353.0	384.2	393.7	404.2	392.7	181.9
		Wood, turned and shaped		303.9	310.4	317.4	307.3	298.3	305.3	290.8	287.8	281.2	281.4	268.5	175.5
		Stone, clay, and glass products¹	347.9	343.4	337.9	336.6	321.4	322.9	335.7	331.2	328.2	320.2	315.5	298.8	189.1
		Glass and glassware		352.5	355.3	358.2	340.0	343.4	356.5	357.2	351.2	342.8	334.1	312.8	208.3
		Glass products made from purchased glass		264.5	259.9	267.6	267.0	271.6	287.1	269.4	264.0	251.5	246.4	247.2	165.9
		Cement		314.3	297.2	287.3	282.8	284.7	291.3	294.0	294.7	298.3	297.0	283.5	156.5
		Brick, tile, and terra cotta		320.8	305.6	297.1	279.0	296.9	301.9	296.7	300.2	294.1	289.1	276.4	135.8
		Pottery and related products		351.1	348.7	352.9	337.4	337.8	354.4	349.8	342.7	326.5	330.4	308.6	191.9

¹ See footnote 1, table A-5.

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TABLE A-7: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries¹—Continued

[1939 average=100]

Industry group and industry	1948						1947						June 1948
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	
Durable goods—Continued													
Stone, clay, and glass products ¹ —Continued													
Gypsum	304.8	298.6	285.4	278.4	283.0	290.2	284.5	278.1	258.3	260.4	260.2	243.6	
Wallboard, plaster (except gypsum), and mineral wool	393.7	396.4	390.1	375.5	374.1	386.5	381.5	368.4	357.8	353.9	333.6	327.6	
Lime	273.3	273.3	262.1	243.8	249.5	256.9	259.5	258.9	245.5	243.3	237.7	244.6	
Marble, granite, slate, and other products	182.7	176.6	179.3	169.5	173.5	183.3	175.9	183.5	180.9	176.4	156.7	155.3	
Abrasives	490.6	474.9	487.0	457.4	363.2	462.1	418.2	408.0	408.2	375.6	386.0	413.8	
Asbestos products	329.9	328.9	327.0	322.3	325.0	318.7	313.6	305.6	299.2	301.7	293.2	305.2	
Nondurable goods													
Textile-mill products and other fiber manufactures ¹	304.6	303.8	307.1	315.6	310.6	303.0	302.0	288.2	271.8	262.9	246.2	243.7	248.6
Cotton manufactures, except smallwares	369.7	374.7	385.1	377.0	378.7	376.4	362.1	329.1	317.4	305.7	302.6	307.5	
Cotton smallwares	238.3	243.0	249.1	249.3	243.8	234.1	215.1	213.6	210.6	195.4	200.5	204.9	
Silk and rayon goods	268.6	267.4	267.8	262.4	252.6	248.1	236.6	227.6	220.2	208.5	203.0	206.0	
Woolen and worsted manufactures, except dyeing and finishing	307.9	308.6	322.1	321.1	292.0	294.4	276.6	270.4	268.5	233.6	243.0	252.5	
Hosiery	183.6	189.2	197.6	190.5	188.8	193.5	186.4	177.2	169.4	158.6	148.5	143.2	
Knitted cloth	223.1	237.1	243.3	242.6	236.5	231.6	221.7	214.4	207.8	204.1	192.8	192.7	
Knitted outerwear and knitted gloves	247.6	242.8	249.9	250.3	234.3	241.6	243.0	237.0	215.3	200.6	188.4	199.3	
Knitted underwear	303.4	320.3	323.7	311.0	306.6	306.9	295.4	282.8	274.3	258.0	250.2	253.5	
Dyeing and finishing textiles, including woolen and worsted	299.0	305.6	308.8	311.2	304.1	298.1	279.8	271.3	269.5	248.7	241.1	260.8	
Carpets and rugs, wool	332.8	324.2	327.9	321.8	316.8	311.6	297.6	288.7	276.5	246.3	254.6	251.6	
Hats, fur-felt	184.6	176.4	197.5	202.2	195.8	202.1	181.9	185.9	177.2	171.4	171.8	180.5	
Jute goods, except felts	272.2	275.9	264.2	265.7	250.1	175.4	170.1	168.7	163.7	162.0	232.2	260.0	
Cordage and twine	305.0	311.4	330.4	337.6	330.6	320.0	300.6	282.0	258.6	256.0	252.7	259.8	
Apparel and other finished textile products ¹	303.6	297.9	306.5	343.2	345.2	337.0	327.3	304.8	320.5	303.8	288.4	266.2	262.3
Men's clothing, not elsewhere classified	311.5	317.1	324.8	316.4	313.4	309.5	301.5	303.5	284.9	264.8	260.0	273.0	
Shirts, collars, and nightwear	268.1	274.6	279.7	272.0	273.0	281.3	266.0	258.9	243.2	225.5	219.3	229.0	
Underwear and neckwear, men's	296.6	297.5	313.7	300.0	292.0	304.0	292.9	280.2	261.3	240.7	230.8	248.3	
Work shirts	325.8	316.1	305.6	284.6	247.5	248.2	253.1	262.0	266.9	263.6	247.2	237.5	
Women's clothing, not elsewhere classified	299.3	307.1	376.4	387.1	374.8	355.9	319.3	349.5	334.7	323.1	283.1	264.1	
Corsets and allied garments	213.0	229.1	241.6	237.7	234.5	230.5	226.8	219.0	205.4	194.7	187.4	200.4	
Millinery	126.8	171.1	212.5	236.0	204.4	157.4	123.6	195.2	173.1	171.2	145.5	128.4	
Handkerchiefs	239.1	251.5	259.4	243.4	222.5	251.2	260.4	251.4	239.4	210.6	196.7	207.4	
Curtains, draperies, and bedspreads	338.5	348.2	397.0	431.4	414.9	424.7	422.2	412.1	371.9	334.7	283.9	253.9	
Housefurnishings, other than curtains, etc.	535.3	584.6	609.2	572.9	597.8	653.1	590.1	632.2	604.6	573.5	496.7	553.4	
Textile bags	464.8	446.4	449.3	461.7	481.1	492.9	484.8	472.6	458.8	443.6	438.2	422.4	
Leather and leather products ¹	234.5	216.5	227.1	251.7	262.5	258.7	259.6	262.5	251.8	248.1	235.8	229.0	225.9
Leather	186.8	184.1	192.1	201.6	200.3	203.0	199.8	199.1	198.5	189.8	187.2	185.2	
Boot and shoe cut stock and findings	168.9	173.4	187.9	198.6	201.4	202.6	190.3	189.6	191.4	189.8	182.4	172.9	
Boots and shoes	183.7	198.1	225.6	235.9	233.8	231.9	223.5	223.8	221.5	209.9	204.8	201.7	
Leather gloves and mittens	257.0	241.3	252.8	252.2	245.3	262.4	264.1	267.5	253.5	242.3	227.2	226.9	
Trunks and suitcases	338.3	347.2	364.1	366.9	321.6	369.3	406.0	381.8	335.9	309.1	274.3	298.1	
Food ¹	330.1	278.4	266.5	285.8	288.5	296.6	321.9	323.5	332.8	356.1	349.3	317.1	286.7
Slaughtering and meat packing	202.2	178.4	276.6	263.3	304.2	338.9	317.4	271.7	271.9	270.0	280.9	259.9	
Butter	386.9	362.0	330.3	332.7	330.3	342.2	346.0	353.4	364.8	391.3	387.7	391.5	
Condensed and evaporated milk	477.9	438.1	403.0	388.1	369.8	364.0	377.8	402.5	419.8	446.0	470.6	474.1	
Ice cream	311.3	286.4	261.3	250.9	248.0	258.5	269.9	288.5	326.2	346.0	343.7	335.0	
Flour	296.4	286.8	275.8	298.3	305.9	319.4	336.9	336.4	334.7	336.1	326.1	302.4	
Feeds, prepared	363.8	337.1	329.6	314.7	379.0	381.4	346.9	358.6	382.9	364.1	366.8	359.5	
Cereal preparations	333.6	313.0	297.8	322.2	307.8	306.3	313.7	304.4	337.5	361.2	329.9	290.9	
Baking	235.1	227.6	227.1	234.1	221.5	229.2	227.8	230.8	223.2	218.4	218.0	213.1	
Sugar refining, cane	230.9	229.3	248.4	232.3	216.9	248.9	302.3	279.1	278.7	284.2	275.0	279.2	
Sugar, beet	114.2	96.7	98.9	126.7	188.0	392.8	516.8	464.0	214.3	286.7	131.3	118.6	
Confectionery	210.6	241.2	260.1	303.1	295.3	326.6	325.1	312.2	271.3	233.4	211.4	229.0	
Beverages, nonalcoholic	277.0	257.9	241.0	226.7	237.1	236.3	240.0	258.7	295.6	298.0	287.4	226.1	
Malt liquors	269.9	316.0	293.0	289.9	289.4	307.7	326.8	344.1	370.3	365.1	349.6	318.6	
Canning and preserving	232.7	216.9	204.6	216.5	216.2	250.2	265.7	437.9	683.8	653.7	401.8	249.3	
Tobacco manufactures ¹	205.8	201.3	205.7	204.6	195.7	210.5	219.8	216.3	214.5	205.3	203.0	200.0	194.8
Cigarettes	253.1	254.3	246.5	219.2	259.6	267.9	253.3	252.8	243.7	248.5	253.7	239.6	
Cigars	175.1	182.7	186.6	189.4	188.2	196.7	201.7	196.4	185.4	179.4	169.6	173.7	
Tobacco (chewing and smoking) and snuff	161.8	161.6	159.6	162.2	161.2	175.8	169.0	178.1	177.0	169.9	171.0	152.8	
Paper and allied products ¹	338.3	331.9	325.7	330.8	328.9	328.0	334.0	325.9	320.5	315.5	307.2	304.2	303.4
Paper and pulp	338.9	327.7	330.0	328.3	325.0	327.3	319.9	317.3	317.0	312.3	309.6	302.1	
Paper goods, other	328.2	324.4	327.8	326.6	328.8	335.7	327.4	320.4	311.7	292.7	297.2	301.8	
Envelopes	282.9	282.1	283.7	282.8	278.0	284.1	281.5	279.8	273.7	258.8	250.7	265.2	
Paper bags	354.8	365.3	373.7	357.8	368.1	370.2	347.4	350.0	333.9	337.6	338.6	340.9	
Paper boxes	289.9	292.5	305.4	307.1	309.1	321.9	314.5	340.2	291.5	280.1	273.6	283.8	
Printing, publishing, and allied industries ¹	265.1	262.6	259.5	258.5	254.7	255.3	263.1	257.2	252.8	249.7	240.0	238.0	240.3
Newspapers and periodicals	236.6	235.0	229.2	224.6	218.9	230.0	224.0	221.6	221.6	214.0	208.9	210.0	
Printing: book and job	283.9	278.6	280.0	278.6	283.4	285.3	279.3	272.8	266.6	254.8	258.9	258.1	
Lithographing	223.9	221.4	227.2	219.0	224.0	237.1	236.1	226.2	225.9	215.7	207.4	216.6	
Bookbinding	302.9	304.4	313.4	307.7	315.3	326.6	325.1	325.4	322.9	311.9	299.2	324.7	

¹ See footnote 1, table A-5.

TABLE A-7: Indexes of Production-Worker Weekly Pay Rolls in Manufacturing Industries¹—Con.

[1939 average=100]

		1948						1947						Annual average		
Industry group and industry		June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1943	
Nondurable goods—Continued																
243.6	152	Chemicals and allied products ¹	432.6	422.5	422.1	425.1	425.6	426.7	424.1	416.4	409.6	403.1	390.2	387.7	384.1	422.5
		Paints, varnishes, and colors.....		343.9	329.4	332.9	338.5	332.6	329.8	327.4	318.6	315.0	312.7	308.2	314.0	197.2
327.6	220	Drugs, medicines, and insecticides.....		480.6	477.4	487.6	489.2	490.7	488.5	489.9	499.1	484.7	469.7	449.5	457.6	286.3
244.6	171	Perfumes and cosmetics.....		209.7	215.1	222.0	231.2	230.9	240.5	265.3	250.1	228.2	211.2	205.0	216.7	180.6
155.3	90	Soap.....		322.9	321.8	359.0	376.4	379.3	381.3	371.0	357.6	351.6	325.0	310.2	324.0	174.5
413.8	490	Rayon and allied products.....		275.1	274.6	271.9	270.2	268.6	265.9	260.5	257.8	259.9	252.2	249.8	214.8	168.2
305.2	254	Chemicals, not elsewhere classified.....		563.2	564.8	558.6	559.2	561.3	555.8	540.8	529.8	527.3	527.0	533.7	528.2	336.9
		Explosives and safety fuses.....		592.0	561.5	585.0	587.8	580.2	565.0	566.2	542.8	545.6	539.4	495.0	518.5	2361.8
		Compressed and liquefied gases.....		491.7	483.7	473.6	475.5	465.0	459.6	458.0	445.6	455.3	448.1	437.4	444.0	325.3
		Ammunition, small-arms.....		404.1	398.8	396.8	388.7	380.5	411.9	398.0	393.3	381.4	206.5	359.1	361.6	6734.4
		Fireworks.....		588.0	566.0	625.8	610.2	591.6	633.8	711.6	747.3	577.7	447.7	534.3	691.8	6963.9
		Cottonseed oil.....		245.9	270.2	316.4	338.0	397.4	448.4	448.7	443.1	315.8	221.6	193.8	201.3	230.4
		Fertilizers.....		428.3	482.9	492.3	439.6	433.4	393.0	362.5	373.9	390.9	354.5	334.5	349.8	272.2
248.6	178	Products of petroleum and coal ¹	342.1	334.2	316.7	320.0	315.4	318.1	313.3	309.5	301.8	307.5	302.1	300.5	291.4	184.3
307.5	214	Petroleum refining.....		316.1	301.3	299.3	295.0	296.8	293.4	288.9	279.7	287.6	282.8	286.1	273.4	176.7
204.9	130	Coke and byproducts.....		321.9	288.5	314.6	*312.3	*309.8	294.8	292.7	288.1	289.9	280.0	270.5	281.9	183.4
252.5	190	Paving materials.....		214.5	198.2	163.4	151.9	168.2	224.8	268.8	295.9	297.9	273.2	236.6	228.2	144.8
143.2	106	Roofing materials.....		507.9	495.6	502.7	500.7	508.3	535.7	526.4	523.1	510.5	502.5	493.8	468.4	267.2
192.7	174	Rubber products ¹	332.6	320.9	312.8	320.6	337.2	354.9	373.6	361.4	354.4	348.3	337.6	331.2	342.3	263.9
199.3	102	Rubber tires and inner tubes.....		345.5	323.6	330.2	355.9	388.4	412.1	407.5	398.0	397.9	396.0	389.5	396.1	265.7
253.5	181	Rubber boots and shoes.....		329.1	333.9	347.0	345.0	342.8	367.1	322.4	331.7	314.4	268.4	290.0	317.1	268.8
260.8	174	Rubber goods, other.....		338.7	347.1	356.2	366.2	368.3	379.9	362.2	352.3	338.3	321.5	304.9	320.1	255.8
251.6	141	Miscellaneous industries ¹	384.2	382.6	394.0	393.9	388.2	405.1	403.9	394.1	378.2	355.9	349.2	363.5	322.7	
180.5	121	Instruments (professional and scientific), and fire-control equipment.....	386.1	492.6	494.2	489.3	487.1	507.5	499.2	480.8	478.9	469.3	460.3	453.3	468.3	1356.9
260.0	196	Photographic apparatus.....		431.0	416.2	422.3	424.2	418.1	421.1	416.8	405.1	394.3	385.1	385.9	392.2	311.5
229.8	143	Optical instruments and ophthalmic goods.....		426.7	438.1	444.8	446.3	452.3	458.5	445.3	443.5	442.3	426.5	433.7	462.8	439.0
248.3	160	Pianos, organs, and parts.....		367.8	357.9	396.0	421.1	455.5	513.4	500.1	475.6	460.2	384.8	402.7	417.5	295.1
237.5	220	Games, toys, and dolls.....		496.7	487.6	463.7	450.1	399.7	469.5	525.9	518.7	482.3	431.4	410.1	395.0	169.7
164.1	184	Buttons.....		269.4	269.4	284.3	285.5	275.7	280.8	262.5	245.8	230.2	220.7	209.2	228.3	204.1
100.4	125	Fire extinguishers.....		563.4	575.5	541.0	523.2	546.8	520.4	560.6	555.4	558.9	583.7	600.0	586.5	1622.9

¹ See footnote 1, table A-5.

* Revised.

TABLE A-8: Estimated Number of Employees in Selected Nonmanufacturing Industries¹

[In thousands]

Industry group and industry	1948						1947						Annual average		
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	1943	1939
Mining: ¹															
Coal:															
Anthracite.....	77.4	76.4	76.9	77.4	76.6	76.2	76.5	76.2	76.2	76.0	76.7	74.2	75.7	78.4	83.6
Bituminous.....	406	402	296	401	397	404	402	399	397	394	390	363	392	419	372
Metal:	92.8	90.9	91.6	91.4	90.2	89.7	89.8	89.4	88.7	89.6	91.0	90.6	91.9	112.7	92.6
Iron.....	34.0	32.5	32.3	31.5	31.0	30.9	31.3	32.0	32.4	32.4	32.7	32.6	32.4	35.3	21.1
Copper.....	26.3	26.1	26.8	26.9	27.0	26.9	26.6	26.1	25.8	25.7	25.7	25.7	25.7	33.3	25.0
Lead and zinc.....	16.3	16.5	16.4	16.3	*16.3	15.7	15.6	15.4	14.9	15.5	16.5	16.3	17.8	21.6	16.3
Gold and silver.....	8.3	8.1	8.5	8.7	8.7	8.6	8.5	8.1	8.0	8.2	8.3	8.1	8.0	7.7	26.0
Miscellaneous.....	7.9	7.7	7.7	7.9	7.8	7.7	7.9	7.8	7.6	7.7	7.9	7.9	7.9	14.8	4.2
Quarrying and nonmetallic.....	86.8	86.0	84.9	80.9	77.8	79.9	83.9	86.4	87.3	88.1	88.9	88.6	88.3	80.9	68.5
Crude petroleum and natural gas production ²	133.5	129.6	128.2	127.1	127.1	126.4	126.3	126.4	127.1	128.7	131.0	130.8	128.5	103.2	114.4
Transportation and public utilities:															
Class I steam railroads ³	1,351	1,321	1,260	1,316	1,311	1,318	1,331	1,340	1,357	1,364	1,381	1,383	1,375	1,355	988
Street railways and busses ⁴	249	249	249	249	249	250	249	249	249	251	253	254	253	227	194
Telephone.....	634	631	631	627	623	620	620	614	609	613	616	614	605	402	318
Telegraph ⁵	36.1	36.3	36.9	36.9	36.8	36.6	36.7	36.6	36.9	37.6	37.8	38.2	38.5	46.9	37.6
Electric light and power.....	279	274	273	271	269	268	269	268	267	268	269	267	263	211	244
Service:															
Hotels (year-round).....	379	377	377	375	377	378	381	378	380	379	379	382	385	344	323
Power laundries ⁶	238	233	232	231	230	235	237	238	241	243	245	250	249	252	196
Cleaning and dyeing ⁷	94.8	93.4	92.5	90.0	86.8	88.9	91.0	92.7	95.6	94.3	93.1	97.7	100.8	78.0	58.2

¹ Includes all employees unless otherwise noted. Data for the three most recent months are subject to revision without notation. Revised data for earlier months are identified by an asterisk.

² Includes production and related workers only.

³ Estimates have been adjusted to levels indicated by data through 1946 made available by the Federal Security Agency. Only the bituminous coal industry was affected by this adjustment and comparable data from January 1946 are available. Comparable data for all industries from January 1939 are available upon request to the Bureau of Labor Statistics.

⁴ Does not include well drilling or rig building.

⁵ Includes all employees at middle of month. Excludes employees of switching and terminal companies. Class I steam railroads include those with over \$1,000,000 annual revenue. Source: Interstate Commerce Commission.

⁶ Includes private and municipal street-railway companies, and affiliated, subsidiary, or successor trolley-bus and motor-bus companies.

⁷ Includes all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.

* Revised.

TABLE A-9: Indexes of Employment in Selected Nonmanufacturing Industries ¹
[1939 average=100]

Industry group and industry	1948						1947							Annual average 1948
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	
Mining: ^{2,3}														
Coal:														
Anthracite.....	92.6	91.4	91.9	92.6	91.6	91.1	91.5	91.2	91.2	91.0	91.7	88.7	90.5	90.5
Bituminous.....	109.1	108.2	79.5	108.0	106.8	108.7	108.3	107.4	106.8	106.0	105.0	97.5	105.4	105.4
Metal.....	100.2	98.2	98.9	98.7	97.4	96.9	97.0	96.5	95.8	96.8	98.3	97.8	99.3	99.3
Iron.....	160.8	154.0	152.8	149.4	146.8	146.5	148.0	151.3	153.3	153.6	154.6	154.3	153.5	153.5
Copper.....	105.4	104.7	107.2	107.9	108.2	107.5	106.6	104.4	103.1	103.0	102.8	102.9	102.9	102.9
Lead and zinc.....	100.3	101.2	100.8	100.2	*99.9	96.2	95.8	94.8	91.8	95.5	101.4	100.0	109.7	109.7
Gold and silver.....	31.9	31.3	32.5	33.3	33.4	33.1	32.5	31.3	30.9	31.5	31.8	31.3	30.8	30.8
Miscellaneous.....	188.6	182.9	182.8	189.1	187.0	183.0	187.2	185.7	181.6	184.6	188.3	187.9	189.3	189.3
Quarrying and nonmetallic.....	126.8	125.6	124.0	118.2	113.7	116.7	122.6	126.2	127.6	128.7	129.8	129.4	129.0	129.0
Crude petroleum and natural gas production ⁴	116.7	113.3	112.0	111.1	111.1	110.5	110.4	110.5	111.1	112.5	114.5	114.3	112.3	112.3
Transportation and public utilities:														
Class I steam railroads ⁵	136.8	133.7	127.5	133.3	132.7	133.4	134.8	135.7	137.4	138.1	139.8	140.0	139.2	139.2
Street railways and busses ⁵	128.3	128.5	128.3	128.7	128.6	129.2	128.6	128.7	128.8	129.6	130.7	130.9	130.4	130.4
Telephone.....	199.6	198.6	198.5	197.4	196.2	195.0	195.0	193.3	191.6	192.9	193.8	193.3	190.4	190.4
Telegraph ⁷	96.0	96.3	97.9	98.2	97.8	97.2	97.6	97.2	98.1	99.8	100.5	101.5	102.3	102.3
Electric light and power.....	114.0	112.3	111.7	110.9	110.3	109.8	110.3	109.7	109.4	109.9	110.2	109.3	107.5	107.5
Trade: ⁶														
Wholesale.....	115.3	114.4	114.8	115.3	116.1	116.3	117.1	116.5	115.5	113.3	112.2	111.1	110.5	110.5
Retail.....	113.6	113.1	112.8	113.8	111.8	114.4	130.2	119.8	115.8	112.4	110.0	110.2	111.4	111.4
Food.....	115.5	116.3	116.1	116.7	113.9	114.4	117.4	116.1	115.0	112.6	114.7	113.0	113.7	113.7
General merchandise.....	124.8	123.7	123.6	124.5	122.9	129.4	175.5	143.6	131.5	122.8	115.7	116.7	120.6	120.6
Apparel.....	115.4	115.2	114.3	116.8	108.2	111.5	136.7	124.0	119.4	113.5	103.4	106.8	115.0	115.0
Furniture and housefurnishings.....	92.0	91.9	91.7	91.9	91.0	93.6	97.4	92.4	89.5	87.5	85.9	86.0	85.1	85.1
Automotive.....	108.5	107.0	107.1	105.8	105.7	106.5	109.9	107.6	105.6	104.8	105.1	104.2	100.6	100.6
Lumber and building materials.....	126.3	123.7	121.9	119.4	118.8	122.5	126.1	126.4	126.9	124.5	123.1	121.4	119.4	119.4
Service:														
Hotels (year-round).....	117.6	117.0	116.9	116.4	116.8	117.2	118.1	117.1	117.7	117.4	117.6	118.3	119.4	119.4
Power laundries ⁸	121.5	119.0	118.3	117.7	117.6	120.1	120.9	121.3	123.1	124.3	125.0	127.8	127.2	127.2
Cleaning and dyeing ⁸	163.1	160.6	159.0	154.8	149.3	152.8	156.5	159.4	164.4	162.1	160.1	167.9	173.3	173.3

¹ See footnote 1, table A-8.² See footnote 2, table A-8.³ See footnote 3, table A-8.⁴ See footnote 4, table A-8.⁵ See footnote 5, table A-8.⁶ See footnote 6, table A-8.⁷ See footnote 7, table A-8.⁸ Includes all nonsupervisory employees and working supervisors.

* Revised.

TABLE A-10: Indexes of Weekly Pay Rolls in Selected Nonmanufacturing Industries ¹
[1939 average=100]

Industry group and industry	1948						1947							Annual average
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	
Mining: ^{2,3}														
Coal:														
Anthracite.....	248.1	246.2	195.4	255.9	232.8	242.4	239.4	224.4	252.7	237.9	244.0	200.3	219.4	146.1
Bituminous.....	346.7	341.4	166.4	342.0	320.0	350.5	345.8	327.4	327.5	321.6	314.7	229.7	300.6	203.2
Metal.....	206.9	204.0	200.9	201.3	201.7	198.9	198.8	194.8	192.7	193.6	193.3	186.1	196.7	184.0
Iron.....	345.1	332.1	315.6	313.8	310.3	302.7	301.1	310.2	315.5	311.0	313.0	307.5	322.1	287.0
Copper.....	229.6	230.0	232.6	234.8	241.7	238.0	236.5	224.7	222.9	225.3	219.0	211.6	216.2	214.0
Lead and zinc.....	236.0	236.6	236.3	232.8	*235.0	228.1	231.6	220.6	209.7	216.0	220.5	210.5	241.9	226.7
Gold and silver.....	54.2	54.6	55.2	56.7	58.4	56.4	56.5	53.7	51.7	52.1	52.1	47.2	49.9	57.2
Miscellaneous.....	360.7	352.5	343.1	349.2	347.4	348.4	349.2	346.7	338.1	339.6	345.0	327.6	332.0	306.0
Quarrying and nonmetallic.....	321.7	329.7	311.7	287.3	262.0	270.0	295.3	305.7	319.2	315.9	317.2	307.0	307.1	196.0
Crude petroleum and natural gas production ⁴	227.1	228.7	218.4	213.2	219.9	215.5	203.2	211.0	199.9	206.5	204.0	204.9	206.0	128.0
Transportation and public utilities:														
Class I steam railroads.....	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Street railways and busses ⁵	231.2	228.1	227.1	232.6	234.7	230.1	226.7	223.6	223.2	224.1	225.2	222.1	222.1	154.7
Telephone.....	328.2	330.5	322.5	314.7	316.3	315.8	313.0	321.5	314.2	312.3	306.2	302.2	292.5	144.0
Telegraph ⁷	228.5	231.1	224.8	213.0	212.6	209.5	207.8	206.8	208.1	211.8	213.5	215.2	218.8	159.8
Electric light and power.....	196.3	191.9	188.6	184.4	188.2	187.9	185.7	187.6	182.8	183.1	182.9	178.4	177.5	109.7
Trade: ⁶														
Wholesale.....	211.8	211.6	210.8	210.8	214.9	211.7	213.9	213.6	206.9	203.3	198.2	196.5	198.0	127.0
Retail.....	218.3	213.8	211.1	210.4	208.4	209.4	207.6	216.5	207.1	202.5	197.6	198.5	201.6	120.0
Food.....	231.9	227.0	225.5	226.1	221.5	219.4	221.5	220.0	213.8	209.2	212.2	213.8	212.1	120.0
General merchandise.....	236.5	229.2	225.5	225.5	221.4	233.0	234.0	251.1	225.2	220.4	212.0	214.1	218.9	131.0
Apparel.....	214.7	211.8	208.6	208.8	194.3	198.8	248.8	222.7	213.5	203.5	182.9	192.0	207.4	131.0
Furniture and housefurnishings.....	180.2	180.3	175.5	173.7	177.8	174.5	192.9	177.3	167.6	159.8	155.1	155.8	157.4	94.0
Automotive.....	209.5	205.3	204.7	197.5	196.8	193.9	204.2	198.6	193.8	188.5	188.5	184.8	184.3	84.7
Lumber and building materials.....	252.8	242.6	234.9	228.6	227.6	228.0	238.1	233.5	238.8	231.8	229.0	218.8	219.4	120.0
Service:														
Hotels (year-round) ⁸	236.5	234.6	233.4	229.0	233.2	230.4	233.2	228.6	226.9	222.4	221.0	222.0	226.4	126.0
Power laundries ⁸	238.3	232.3	231.5	227.5	225.4	232.9	233.6	226.8	232.3	236.2	231.3	238.5	239.3	167.0
Cleaning and dyeing ⁸	325.2	312.4	308.0	291.2	271.9	285.6	292.8	293.7	303.8	301.7	285.0	310.5	328.4	185.0

¹ See footnote 1, table A-8.² See footnote 2, table A-8.³ See footnote 3, table A-8.⁴ See footnote 4, table A-8.⁵ Not available.⁶ See footnote 6, table A-8.⁷ See footnote 7, table A-8.⁸ See footnote 8, table A-8.⁹ Money payments only; additional value of board, room, uniforms, and tips, not included.

* Revised.

TABLE A-11: Total Federal Employment by Branch and Agency Group ¹

		Year and month	All branches	Executive ¹				Legislative	Judicial	Government corporations ²
				Total	Defense agencies ³	Post Office Department ⁴	All other agencies			
June 1943		Total (including areas outside continental United States)								
90.5		968,596	935,493	207,979	319,474	408,040	5,373	2,260	25,470	
105.4		3,183,235	3,138,838	2,304,752	364,092	469,994	6,171	2,636	35,590	
99.3		47: June	2,168,896	2,127,715	996,238	437,303	694,174	7,215	3,061	30,905
153.5		July	2,103,246	2,062,275	936,533	439,617	686,125	7,254	3,074	30,643
102.9		August	2,067,228	2,026,071	923,080	442,289	660,702	7,230	3,404	30,523
109.7		September	2,020,873	1,980,084	906,989	425,449	647,646	7,184	3,406	30,199
30.8		October	2,002,385	1,962,042	901,197	425,005	635,840	7,118	3,430	29,795
189.3		November	2,006,412	1,966,339	905,251	429,789	631,299	7,098	3,453	29,552
129.0		December	2,229,164	2,189,436	894,855	667,912	626,669	7,046	3,450	29,232
112.3		48: January	1,985,797	1,946,076	890,719	432,920	622,437	7,051	3,461	29,209
139.2		February	1,992,216	1,952,533	895,850	432,696	623,987	7,125	3,470	29,088
130.4		March	2,004,228	1,964,374	897,958	439,517	626,899	7,210	3,462	29,182
190.4		April	2,020,715	1,980,998	903,814	449,260	627,924	7,184	3,461	29,072
102.3		May	2,038,950	1,999,234	909,885	455,707	633,642	7,246	3,468	29,012
107.5		June	2,054,004	2,014,453	916,864	458,244	639,345	7,308	3,459	28,784
		Continental United States								
110.5		49: June	926,659	897,602	179,381	318,802	399,419	5,373	2,180	21,504
111.4		50: July	2,913,534	2,875,928	2,057,696	363,297	454,935	6,171	2,546	28,889
113.7		47: June	1,905,068	1,871,898	769,268	435,831	666,799	7,215	2,993	22,962
120.6		July	1,848,469	1,815,222	718,523	438,110	658,589	7,254	3,006	22,987
115.0		August	1,815,905	1,782,410	708,681	440,773	632,956	7,230	3,332	22,933
85.1		September	1,781,733	1,748,530	704,575	424,005	619,950	7,184	3,334	22,685
100.6		October	1,764,384	1,731,411	699,815	423,473	608,123	7,118	3,358	22,497
119.4		November	1,771,360	1,738,587	706,418	428,252	603,917	7,068	3,381	22,324
127.2		December	2,005,567	1,973,066	708,099	665,662	599,305	7,046	3,377	22,078
173.3		48: January	1,763,300	1,730,871	704,251	431,389	595,231	7,051	3,388	21,990
		February	1,766,184	1,733,698	705,792	431,214	596,692	7,125	3,396	21,965
		March	1,778,593	1,745,910	708,975	437,942	598,993	7,210	3,388	22,085
		April	1,791,763	1,759,094	710,991	447,678	600,425	7,184	3,387	22,098
		May	1,808,768	1,776,138	717,072	454,122	604,944	7,246	3,394	21,990
		June	1,824,048	1,791,494	724,683	456,633	610,178	7,308	3,388	21,858

¹ Employment represents an average for the year or is as of the first of the month. Data for the legislative and judicial branches and for all Government corporations except the Panama R. R. Co. are reported directly to the Bureau of Labor Statistics. Data for the executive branch and for the Panama R. R. Co. are reported through the Civil Service Commission but differ from those published by the Civil Service Commission in the following respects: (1) Exclude seamen and trainees who are hired and paid by private steamship companies having contracts with the Maritime Commission, included by Civil Service Commission starting January 1947; (2) exclude substitute rural mail carriers, included by the Civil Service Commission since September 1945; (3) include in December the additional postal employment necessitated by the Christmas season, excluded from published Civil Service Commission figures starting 1942; (4) include an upward adjustment to Post Office Department employment prior to December 1943 to convert temporary substitute employees from a full-time equivalent to a name-count basis, the latter being the basis on which data for subsequent months have been reported; (5) the Panama R. R. Co. is shown under Government corporations here, but is included under the executive branch by the Civil Service Commission; (6) employment published by the Civil Service Commission as of the last day of the month is presented here as of the first day of the next month.

Data for Central Intelligence Agency are excluded starting August 1947. From 1939 through June 1943 employment was reported for all areas monthly and employment within continental United States was secured by deducting the number of persons outside the continental area, which was

estimated from actual reports as of January 1939 and 1940 and July of 1941, and 1943. From July 1943, through December 1946, employment within continental United States was reported monthly and the number of persons outside the country (estimated from quarterly reports) was added to secure employment in all areas. Beginning January 1947, employment is reported monthly both inside and outside continental United States.

² Data for current months cover the following corporations: Federal Reserve banks, mixed ownership banks of the Farm Credit Administration, and the Panama R. R. Co. Data for earlier years include at various times the following additional corporations: Inland Waterways Corporation, Spruce Production Corporation, and certain employees of the Federal Deposit Insurance Corporation and of the Office of the Comptroller of the Currency, Treasury Department. Corporations not included in this column are under the executive branch.

³ Covers the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and until their abolition or amalgamation with a peacetime agency, the agencies created specifically to meet war and reconversion emergencies.

⁴ For ways in which data differ from published figures of the Civil Service Commission, see footnote 1. Employment figures include fourth-class postmasters in all months. Prior to July 1945, clerks at third-class post offices were hired on a contract basis and therefore, because of being private employees, are excluded here. They are included beginning July 1945, however, when they were placed on the regular Federal pay roll by congressional action.

TABLE A-12: Total Federal Pay Rolls by Branch and Agency Group ¹

[In thousands]

Year and month	All branches	Executive ²				Legislative	Judicial	Government corporations ³
		Total	Defense agencies ⁴	Post Office Department ⁵	All other agencies			
Total (including areas outside continental United States)								
1939.....	\$1,757,292	\$1,602,824	\$357,628	\$586,347	\$748,849	\$14,767	\$6,691	\$43,010
1944 ⁶	8,301,111	8,206,411	6,178,387	864,947	1,163,077	18,127	9,274	67,290
1947: June.....	508,378	499,154	234,576	93,505	171,073	2,425	1,149	5,630
July.....	494,351	484,811	213,772	96,591	174,448	2,483	1,329	5,728
August.....	464,076	454,723	199,247	96,145	159,331	2,421	1,259	5,674
September.....	470,515	461,157	201,582	96,485	163,090	2,448	1,284	5,626
October.....	481,401	471,938	203,892	99,713	168,333	2,457	1,334	5,672
November.....	451,502	442,171	192,111	98,666	151,394	2,457	1,192	5,692
December.....	531,427	521,900	214,033	143,537	164,330	2,461	1,336	5,730
1948: January.....	482,987	473,466	211,495	100,395	161,576	2,451	1,292	5,779
February.....	445,150	435,894	191,372	98,054	146,468	2,404	1,195	5,637
March.....	498,272	488,676	218,706	102,124	167,846	2,496	1,343	5,737
April.....	477,580	468,100	204,606	100,894	162,600	2,480	1,322	5,678
May.....	494,705	485,356	205,912	100,925	158,519	2,469	1,207	5,673
June.....	498,812	489,182	216,910	102,691	169,581	2,546	1,263	5,821
Continental United States								
1944 ⁶	\$7,628,017	\$7,540,825	\$5,553,166	\$862,271	\$1,125,388	\$18,127	\$8,878	\$60,187
1947: June.....	463,490	454,930	197,216	93,185	164,529	2,425	1,114	5,021
July.....	453,649	444,743	180,976	96,260	167,507	2,483	1,293	5,130
August.....	423,545	414,898	166,681	95,819	152,398	2,421	1,223	5,000
September.....	430,555	421,857	169,441	96,138	156,278	2,448	1,248	5,002
October.....	443,408	434,545	173,717	99,356	161,472	2,457	1,297	5,109
November.....	414,020	405,485	162,219	98,313	144,953	2,457	1,154	4,924
December.....	491,702	482,860	182,091	143,057	157,712	2,461	1,301	5,080
1948: January.....	443,175	434,366	179,395	100,052	154,919	2,451	1,255	5,100
February.....	408,628	399,975	161,996	97,703	140,276	2,404	1,160	5,096
March.....	456,824	447,901	185,284	101,765	160,852	2,496	1,304	5,120
April.....	439,652	430,845	174,409	100,543	155,893	2,480	1,288	5,038
May.....	434,637	426,011	174,209	100,570	151,232	2,469	1,174	4,983
June.....	457,335	448,423	184,433	102,341	161,649	2,546	1,263	5,110

¹ Data are from a series revised June 1947 to adjust pay rolls, which from July 1945 until December 1946 were reported for pay periods ending during the month, to cover the entire calendar month. Data for the executive branch and for the Panama R. R. Co. are reported through the Civil Service Commission. Data for the legislative and judicial branches and for all Government corporations except the Panama R. R. Co. are reported directly to the Bureau of Labor Statistics. Data for Central Intelligence Agency are excluded starting July 1947.

² From 1939 through May 1943, pay rolls were reported for all areas monthly. Beginning June 1943, some agencies reported pay rolls for all areas and some reported pay rolls for the continental area only. Pay rolls for areas outside continental United States from June 1943 through November 1946 (except for the National Military Establishment for which these data were reported monthly during most of this period) were secured by multiplying employment in these areas (see footnote 2, table A-11, for derivation of the employ-

ment) by the average pay per person in March 1944, as revealed in a survey as of that date, adjusted for the salary increases given in July 1945 and July 1946. Beginning December 1946 pay rolls for areas outside the country are reported monthly by most agencies.

³ See footnote 3, table A-11.

⁴ See footnote 4, table A-11.

⁵ Beginning July 1945, pay is included of clerks at third-class post offices who previously were hired on a contract basis and therefore were private employees and of fourth-class postmasters who previously were recompensed by the retention of a part of the postal receipts. Both these groups were placed on a regular salary basis in July 1945 by congressional action.

⁶ Data are shown for 1944, instead of 1943 as in the other Federal tables, because pay rolls for employment in areas outside continental United States are not available prior to June 1943.

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Beginning January 1942, data for the executive branch cover, in addition to the area inside the District of Columbia, the adjacent sections of Maryland

⁴ Yearly figures represent averages. Monthly figures represent (1) the number of regular employees in pay status on the first day of the month plus the number of intermittent employees who were paid during the preceding month for the executive branch, (2) the number of employees on the pay roll with pay during the pay period ending just before the first of the month for the legislative and judicial branches, and (3) the number of employees on the pay roll with pay during the pay period ending on or just before the last day of the month for the District of Columbia Government.

TABLE A-14: Personnel and Pay in Military Branch of Federal Government ¹

[In thousands]

Year and month	Personnel (average for year or as of first of month) ²					Type of pay				
	Total	Army and Air Forces ³	Navy	Marine Corps	Coast Guard	Total	Pay rolls ⁴	Mustering-out pay ⁵	Family allowances ⁶	Leave payments ⁷
1939.....	345	192	124	19	10	\$331,523	\$331,523			
1943.....	8,944	6,733	1,744	311	156	11,173,186	10,140,852		\$1,032,334	
1947: June.....	1,632	1,021	496	94	21	335,391	262,505	\$12,465	24,450	\$11,000
July.....	1,592	990	490	93	19	339,128	259,172	12,670	25,036	42,300
August.....	1,575	972	492	92	19	334,129	248,670	10,498	24,502	50,400
September.....	1,557	955	491	92	19	332,804	248,928	9,632	24,210	50,000
October.....	1,543	941	491	92	19	355,961	271,040	9,954	25,145	49,000
November.....	1,490	920	459	92	19	309,705	252,112	9,117	23,127	25,000
December.....	*1,463	911	*445	87	20	300,257	246,532	13,293	23,827	15,000
1948: January.....	*1,422	898	*421	83	20	300,241	250,953	13,465	23,454	12,000
February.....	*1,419	905	*414	80	20	281,423	240,493	11,838	23,566	5,000
March.....	*1,422	909	*413	80	20	285,011	242,969	13,050	24,997	3,000
April.....	*1,417	906	*412	79	20	285,210	247,452	9,751	25,414	2,000
May.....	*1,419	916	*403	80	20	278,995	242,292	9,085	25,736	1,000
June.....	1,439	930	407	82	20	278,956	244,999	5,779	26,280	1,000

¹ Except for Army personnel for 1939 which is from the Annual Report of the Secretary of War, all data are from reports submitted to the Bureau of Labor Statistics by the various military branches.

² Includes personnel on active duty, the missing, those in the hands of the enemy, and those on terminal leave through October 1, 1947, when lump-sum terminal-leave payments at time of discharge were started.

³ Prior to March 1944, data include persons on induction furlough. Prior to June 1942 and after April 1945, Philippine Scouts are included.

⁴ Pay rolls are for personnel on active duty; they include payment of personnel while on terminal leave through September 1947. For officers this applies to all prior periods and for enlisted personnel back to October 1, 1946, only. Beginning October 1, 1947, they include lump-sum terminal-leave payments made at time of discharge. Coast Guard pay rolls for all periods and Army pay rolls through April 1947 represent actual expenditures. Other data represent estimated obligations based on an average monthly personnel

count. Pay rolls for the Navy and Coast Guard include cash payments of clothing-allowance balances in January, April, July, and October.

⁵ Represents actual expenditures.

⁶ Represents Government's contribution. The men's share is included in the pay rolls.

⁷ Leave payments were authorized by Public Law 704 of the 79th Congress and were continued by Public Law 254 of the 80th Congress to enlisted personnel discharged prior to September 1, 1946, for accrued and unused leave and to officers and enlisted personnel then on active duty for leave accrued in excess of 60 days. Value of bonds (representing face value, to which interest is added when bonds are cashed) and cash payments are included. Lump-sum payments for terminal leave, which were authorized by Public Law 350 of the 80th Congress, and which were started in October 1947, are excluded here and included under pay rolls.

* Revised.

B: Labor Turn-Over

TABLE B-1: Monthly Labor Turn-Over Rates (Per 100 Employees) in Manufacturing Industries by Class of Turn-Over ¹

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total accession:												
1948.....	4.6	3.9	4.0	4.0	*4.0							
1947.....	6.0	5.0	5.1	5.1	4.8	5.5	4.9	5.3	5.9	5.5	4.8	
1946.....	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	
1943.....	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	
1939 ²	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	
Total separation:												
1948.....	4.3	4.2	4.5	4.7	*4.3							
1947.....	4.9	4.5	4.9	5.2	5.4	4.7	4.6	5.3	5.9	5.0	4.0	
1946.....	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	
1943.....	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	
1939 ²	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	
Quit: ³												
1948.....	2.6	2.5	2.8	3.0	*2.8							
1947.....	3.5	3.2	3.5	3.7	3.5	3.1	3.1	4.0	4.5	3.6	2.7	
1946.....	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	4.7	3.7	
1943.....	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	
1939 ².....	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	
Discharge:												
1948.....	.4	.4	.4	.4	*.3							
1947.....	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	
1946.....	.5	.5	.4	.4	.4	.3	.4	.4	.4	.4	.4	
1943.....	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	
1939 ².....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	
Lay-off: ⁴												
1948.....	1.2	1.2	1.2	1.2	*1.1							
1947.....	.9	.8	.9	1.0	1.4	1.1	1.0	.8	.9	.9	.8	
1946.....	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	1.0	.7	
1943.....	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	
1939 ²	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	
Miscellaneous including military: ⁵												
1948.....	.1	.1	.1	.1	*.1							
1947.....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	
1946.....	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	
1943.....	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	

¹ Month-to-month changes in total employment in manufacturing industries as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month, while the latter, for the most part, refer to a 1-week period ending nearest the middle of the month. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain seasonal industries, such as canning and preserving, are

not covered. Plants on strike are also excluded. For coverage, see table B-2.

² Preliminary figures.

³ Prior to 1943, rates relate to wage earners only.

⁴ Prior to September 1940, miscellaneous separations were included with quits.

⁵ Including temporary, indeterminate (of more than 7 days' duration) and permanent lay-offs.

TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Industry Group and Industry ¹

Industry group and industry	Total accession		Separation								Miscellaneous, including military	
			Total		Quit		Discharge		Lay-off			
	May ² 1948	Apr. 1948	May ² 1948	Apr. 1948	May ² 1948	Apr. 1948	May ² 1948	Apr. 1948	May ² 1948	Apr. 1948	May ² 1948	Apr. 1948
MANUFACTURING												
Durable goods.....	4.1	4.2	4.6	5.0	2.9	3.2	0.4	0.4	1.2	1.3	0.1	0.1
Non-durable goods.....	4.0	3.7	4.1	4.4	2.7	2.8	.3	.3	1.0	1.1	.1	.1
Durable goods												
Iron and steel and their products.....	3.9	3.5	3.9	4.0	2.7	2.8	.3	.3	.7	.7	.2	.2
Blast furnaces, steel works, and rolling mills.....	3.5	2.6	2.9	2.7	2.4	2.1	.2	.2	.1	.2	.2	.2
Gray-iron castings.....	4.5	5.4	5.6	7.8	3.8	4.6	.5	.7	1.2	2.4	.1	.1
Malleable-iron castings.....	5.4	5.2	5.3	7.0	4.6	5.6	.5	.7	.1	.5	.1	.2
Steel castings.....	4.5	4.9	4.2	4.6	3.3	3.5	.6	.6	.2	.4	.1	.1
Cast-iron pipe and fittings.....	4.9	2.6	4.3	3.6	3.7	2.8	.3	.3	.2	.4	.1	.1
Tin cans and other tinware.....	7.2	7.1	4.3	5.6	2.8	3.4	.5	.4	.9	1.7	.1	.1
Wire products.....	2.6	2.0	3.5	4.3	1.8	2.1	.3	.3	1.2	1.7	.2	.2
Cutlery and edge tools.....	2.4	3.0	4.6	5.1	2.0	3.0	.3	.3	2.2	1.7	.1	.1
Tools (except edge tools, machine tools, files, and saws).....	2.6	3.3	3.5	4.2	2.4	2.8	.4	.5	.6	.8	.1	.1
Hardware.....	2.8	3.2	5.1	6.3	3.1	4.3	.5	.6	1.4	1.2	.1	.2
Stoves, oil burners, and heating equipment.....	6.1	4.3	5.0	5.8	3.3	3.1	.4	.4	1.2	2.2	.1	.1
Steam and hot-water heating apparatus and steam fittings.....	6.2	5.4	5.8	6.4	3.3	4.1	.5	.6	2.0	1.6	(³)	.1
Stamped and enameled ware and galvanizing.....	4.1	7.4	5.5	6.3	3.6	4.1	.4	.5	1.4	1.5	.1	.2
Fabricated structural-metal products.....	3.1	3.8	5.7	4.8	2.3	2.9	.3	.4	3.0	1.4	.1	.1
Bolts, nuts, washers, and rivets.....	2.9	2.7	3.0	3.6	2.0	2.3	.5	.4	.3	.7	.2	.2
Forgings, iron and steel.....	2.4	3.4	4.3	4.5	1.9	2.8	.4	.4	1.8	1.2	.2	.1
Electrical machinery.....	2.4	2.7	4.1	4.0	2.1	2.2	.3	.3	1.6	1.4	.1	.1
Electrical equipment for industrial use.....	1.6	1.8	2.6	2.7	1.5	1.6	.1	.2	.9	.8	.1	.1
Radios, radio equipment, and phonographs.....	3.6	5.0	6.3	5.3	2.9	2.9	.4	.4	2.9	1.9	.1	.1
Communication equipment, except radios.....	1.1	1.1	3.7	3.1	1.8	1.7	.2	.3	1.6	1.0	.1	.1
Machinery, except electrical.....	3.3	3.3	3.6	4.1	2.4	2.7	.3	.4	.8	.9	.1	.1
Engines and turbines.....	3.3	3.7	4.9	4.6	2.1	2.2	.3	.4	2.1	1.8	.3	.2
Agricultural machinery and tractors.....	4.1	5.0	4.7	5.8	3.8	4.9	.4	.4	.3	.3	.2	.2
Machine tools.....	2.2	1.9	2.2	3.2	1.3	1.7	.2	.2	.6	1.1	.1	.2
Machine-tool accessories.....	3.8	4.1	3.2	3.6	1.6	1.7	.4	.4	1.1	1.5	.1	(³)
Metalworking machinery and equipment, not elsewhere classified.....	2.9	3.2	2.6	3.8	2.1	2.8	.3	.6	.1	.3	.1	.1
General industrial machinery, except pumps.....	3.1	3.2	3.2	4.0	2.2	2.4	.3	.4	.6	1.1	.1	.1
Pumps and pumping equipment.....	2.5	2.3	3.2	4.3	1.7	2.5	.5	.4	.8	1.2	.2	.2
Transportation equipment, except automobiles.....	6.1	6.8	6.9	8.2	2.8	3.1	.5	.5	3.5	4.5	.1	.1
Aircraft.....	4.8	5.8	3.8	4.6	2.6	3.1	.3	.3	.9	1.1	(³)	.1
Aircraft parts, including engines.....	3.5	4.2	2.3	2.6	1.6	1.6	.3	.3	.3	.6	.1	.1
Shipbuilding and repairs.....	9.8	9.7	13.6	15.6	3.7	3.8	1.0	.8	8.8	10.9	.1	.1
Automobiles.....	4.1	5.1	5.0	5.2	2.8	3.4	.5	.5	1.6	1.1	.1	.2
Motor vehicles, bodies, and trailers.....	4.1	5.3	4.6	4.9	3.1	3.6	.4	.4	1.0	.7	.1	.2
Motor-vehicle parts and accessories.....	4.0	4.8	5.7	5.8	2.4	2.9	.5	.6	2.7	2.1	.1	.2
Nonferrous metals and their products.....	3.5	3.7	4.1	5.3	2.5	2.9	.4	.5	1.1	1.8	.1	.1
Primary smelting and refining, except aluminum and magnesium.....	2.5	3.0	2.4	3.0	1.6	2.1	.5	.6	.2	.1	.1	.2
Rolling and drawing of copper and copper alloys.....	1.3	3.0	1.9	3.1	1.2	1.8	.2	.4	.4	.8	.1	.1
Lighting equipment.....	4.7	3.4	5.3	7.6	2.9	2.7	.3	.3	2.1	4.5	(³)	.1
Nonferrous-metal foundries, except aluminum and magnesium.....	4.8	4.7	5.4	6.9	3.2	3.9	.5	.7	1.5	2.1	.2	.2
Lumber and timber basic products.....	6.1	6.0	5.0	5.9	4.1	4.5	.3	.3	.6	1.0	(³)	.1
Sawmills.....	6.5	6.0	5.3	5.0	4.4	4.3	.3	.2	.5	.5	(³)	.1
Planing and plywood mills.....	3.8	4.3	3.4	4.9	2.8	4.0	.4	.4	.2	.4	(³)	.1
Furniture and finished lumber products.....	5.2	4.9	7.5	8.3	4.5	5.3	.7	.7	2.2	2.2	.1	.1
Furniture, including mattresses and bedsprings.....	5.1	5.0	7.6	8.4	4.5	5.4	.7	.7	2.3	2.2	.1	.1
Stone, clay, and glass products.....	4.1	4.2	4.1	4.2	2.6	2.7	.3	.4	1.1	.9	.1	.2
Glass and glass products.....	3.9	3.6	5.4	4.9	2.1	2.3	.3	.4	2.9	1.9	.1	.3
Cement.....	4.3	4.7	3.2	3.2	2.5	2.6	.5	.4	.1	.1	.1	.1
Brick, tile, and terra cotta.....	5.4	5.3	4.1	4.2	3.6	3.3	.5	.5	(³)	.4	(³)	(³)
Pottery and related products.....	3.9	4.8	3.6	4.2	2.8	3.0	.4	.4	.3	.7	.1	.1

See footnotes at end of table.

TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Industry Group and Industry
Continued

Industry group and industry	Total accession		Separation									
			Total		Quit		Discharge		Lay-off		Miscellaneous, including military	
	May 1948	Apr. 1948	May 1948	Apr. 1948	May 1948	Apr. 1948	May 1948	Apr. 1948	May 1948	Apr. 1948	May 1948	Apr. 1948
MANUFACTURING—Continued												
Nondurable goods												
Textile-mill products.....	4.1	4.2	4.1	4.5	3.0	3.2	0.3	0.4	0.7	0.8	0.1	0.1
Cotton.....	4.9	4.9	5.1	5.2	4.0	4.0	.4	.4	.6	.7	.1	.1
Silk and rayon goods.....	3.8	3.9	3.3	3.8	2.2	2.6	.3	.3	.6	.6	.2	.2
Woolen and worsted, except dyeing and finishing.....	3.0	3.1	3.1	4.1	1.6	1.9	.3	.3	1.1	1.8	.1	.1
Hosiery, full-fashioned.....	2.8	3.0	3.0	2.8	2.1	2.3	.2	.2	.6	.2	.1	.1
Hosiery, seamless.....	3.5	4.3	6.1	6.4	3.5	4.2	.1	.2	2.4	1.8	.1	.1
Knitted underwear.....	3.3	3.8	4.3	4.7	3.4	3.7	.3	.4	.6	.6	(¹)	(¹)
Dyeing and finishing textiles, including woolen and worsted.....	2.5	2.3	2.8	2.5	1.6	1.6	.4	.3	.7	.5	.1	.1
Apparel and other finished textile products.....	4.3	4.3	4.4	5.0	3.3	3.7	.2	.2	.9	1.1	(¹)	(¹)
Men's and boys' suits, coats, and overcoats.....	3.5	3.6	3.3	3.5	2.3	2.5	.1	.2	.9	.8	(¹)	(¹)
Men's and boys' furnishings, work clothing, and allied garments.....	4.8	4.6	4.5	5.2	3.7	4.3	.2	.2	.6	.7	(¹)	(¹)
Leather and leather products.....	3.1	2.8	4.4	5.2	3.1	3.3	.2	.2	1.0	1.6	.1	.1
Leather.....	2.5	1.8	2.4	4.2	1.2	1.7	.2	.2	.9	2.2	.1	.1
Boots and shoes.....	3.3	2.9	4.8	5.3	3.5	3.5	.2	.2	1.0	1.5	.1	.1
Food and kindred products.....	6.1	5.1	5.4	5.0	3.5	3.0	.4	.4	1.4	1.5	.1	.1
Meat products.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Grain-mill products.....	4.4	3.3	4.0	4.1	2.9	2.8	.3	.3	.7	.8	.1	.1
Tobacco manufactures.....	3.2	3.7	4.5	4.8	3.1	3.7	.2	.3	1.1	.7	.1	.1
Paper and allied products.....	3.5	3.3	3.3	3.3	2.3	2.4	.3	.3	.6	.5	.1	.1
Paper and pulp.....	3.5	3.1	2.9	2.8	2.0	2.0	.3	.3	.5	.4	.1	.1
Paper boxes.....	3.4	3.2	4.2	4.8	2.8	3.3	.3	.5	1.0	.9	.1	.1
Chemicals and allied products.....	2.2	2.0	1.9	2.2	1.2	1.3	.2	.2	.4	.6	.1	.1
Paints, varnishes, and colors.....	2.2	1.9	2.0	2.1	1.3	1.3	.4	.3	.2	.4	.1	.1
Rayon and allied products.....	1.7	1.6	1.2	1.5	.9	1.0	.1	.1	.1	.2	.1	.1
Industrial chemicals, except explosives.....	2.4	2.5	2.2	2.2	1.3	1.4	.3	.3	.5	.4	.1	.1
Products of petroleum and coal.....	2.0	1.8	.9	1.2	.6	.6	.1	.1	.1	.4	.1	.1
Petroleum refining.....	1.1	1.5	.8	.8	.5	.5	.1	.1	.1	.1	.1	.1
Rubber products.....	3.0	2.4	3.1	4.8	2.0	2.5	.2	.2	.7	1.9	.2	.2
Rubber tires and inner tubes.....	2.9	1.6	2.1	4.1	1.4	1.6	.1	.1	.5	2.2	.1	.1
Rubber footwear and related products.....	4.6	4.4	4.8	5.6	3.7	4.1	.2	.2	.3	.6	.6	.6
Miscellaneous rubber industries.....	2.6	3.2	4.1	5.7	2.5	3.5	.2	.4	1.3	1.7	.1	.1
Miscellaneous industries.....	2.3	2.2	2.9	3.3	1.6	1.7	.1	.2	1.1	1.3	.1	.1
NONMANUFACTURING												
Metal mining.....	5.4	6.0	5.1	5.3	4.5	4.3	.3	.3	.1	.5	.2	.2
Iron-ore.....	3.5	5.4	2.8	2.7	2.2	2.1	.1	.1	.1	.1	.4	.4
Copper-ore.....	6.4	5.4	5.9	6.7	5.3	5.5	.2	.2	.2	.9	.2	.2
Lead- and zinc-ore.....	6.0	6.4	6.4	6.0	5.7	4.8	.5	.8	.1	.2	.1	.1
Coal mining.....	1.4	1.8	2.0	2.0	1.3	1.2	.1	.1	.5	.6	.1	.1
Anthracite.....	3.5	(¹)	3.2	(¹)	2.8	(¹)	.1	(¹)	.2	(¹)	.1	(¹)
Bituminous-coal.....												
Public utilities:												
Telephone.....	2.0	2.0	2.0	1.8	1.7	1.5	.1	.1	.1	.1	.1	.1
Telegraph.....	(¹)	1.6	(¹)	2.3	(¹)	1.1	(¹)	.1	(¹)	1.0	(¹)	.1

¹ Since January 1943 manufacturing firms reporting labor turn-over information have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample, comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products. Labor turn-over data, beginning in January 1943, refer to all employees. Employment information for all employees is available for major manufacturing industry groups (table A-3); for individual industries these data refer to production workers only (table A-5).

² Preliminary figures.

³ Less than 0.05.

⁴ Not available.

Coverage

Rates for the month of April are based on 6,900 manufacturing establishments with 4,500,000 employees; and 200 mining establishments with 115,000 employees.

Earnings and Hours

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries¹

MANUFACTURING

Year and month	All manufacturing			Durable goods			Nondurable goods			Iron and steel and their products								
										Total: Iron and steel and their products			Blast furnaces, steel works, and rolling mills			Gray-iron and semi-steel castings		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents			Cents			Cents			Cents
1947: Average.....	\$23.86	37.7	63.3	\$26.50	38.0	69.8	\$21.78	37.4	58.2	\$27.52	37.2	73.9	\$29.88	35.3	84.5	\$25.93	37.1	69.9
1948: January.....	26.64	39.0	68.3	30.48	40.7	74.9	22.75	37.3	61.0	31.07	40.4	76.9	33.60	38.7	86.9	30.45	41.2	73.9
1947: May.....	48.44	40.1	120.7	51.72	40.5	127.8	44.88	39.7	113.0	53.71	40.3	133.3	56.26	38.0	144.5	56.34	42.6	132.2
June.....	49.33	40.2	122.6	52.99	40.7	130.3	45.31	39.8	114.0	55.18	40.5	136.3	58.12	39.5	147.2	56.79	42.3	134.5
July.....	48.98	39.8	123.0	52.19	40.0	130.5	45.61	39.7	115.0	53.67	39.3	136.5	55.23	37.4	147.8	55.64	41.6	134.1
August.....	49.17	39.8	123.6	52.46	40.0	131.2	45.78	39.5	115.8	54.53	39.6	137.6	58.25	39.2	148.8	53.77	40.3	133.5
September.....	50.47	40.4	124.9	54.06	40.6	133.1	46.80	40.2	116.5	56.21	40.3	139.6	58.96	39.0	151.3	56.86	41.7	137.1
October.....	51.05	40.6	125.8	54.69	40.9	133.7	47.29	40.2	117.5	56.61	40.5	139.7	58.56	39.0	150.2	56.66	41.9	136.5
November.....	51.29	40.4	126.8	54.86	40.7	134.6	47.56	40.1	118.5	56.93	40.5	140.4	59.52	39.4	151.0	55.51	40.9	135.9
December.....	52.69	41.2	127.8	56.48	41.7	135.4	48.72	40.8	119.6	58.13	41.2	141.2	60.01	39.5	151.9	58.16	42.5	136.8
1948: January.....	52.07	40.5	128.5	55.46	40.9	135.5	48.45	40.0	121.0	57.43	40.6	141.4	60.58	39.5	153.3	57.31	41.6	137.9
February.....	51.75	40.2	128.7	54.77	40.5	135.2	48.56	39.9	121.7	56.99	40.4	140.9	59.74	39.5	151.3	57.24	41.2	139.0
March.....	52.07	40.4	128.9	55.25	40.9	135.2	48.66	39.9	122.0	57.28	40.6	141.2	59.26	39.4	151.0	58.47	41.8	140.1
April.....	51.71	40.0	129.2	54.87	40.5	135.7	48.26	39.6	121.9	56.48	39.9	141.6	58.37	38.6	151.3	56.39	40.2	140.4
May.....	51.76	39.8	130.1	54.65	40.1	136.5	48.61	39.5	123.1	57.39	40.3	142.3	60.54	39.9	151.5	55.15	39.3	140.3
Iron and steel and their products—Continued																		
	Malleable-iron castings			Steel castings			Cast-iron pipe and fittings			Tin cans and other tinware			Wirework			Cutlery and edge tools		
			Cents			Cents			Cents			Cents			Cents			Cents
1947: Average.....	\$24.16	36.0	67.1	\$27.97	36.9	75.9	\$21.33	36.4	58.1	\$23.61	38.8	61.1	\$25.96	38.1	68.3	\$23.11	39.1	60.1
1948: January.....	28.42	40.2	70.7	32.27	41.4	78.0	25.42	40.5	62.6	25.31	39.8	63.9	28.27	39.7	71.2	25.90	40.5	65.2
1947: May.....	55.02	41.0	134.1	54.33	40.5	134.2	51.86	43.4	119.3	45.66	40.2	113.8	49.72	39.8	125.0	46.94	41.1	114.1
June.....	54.36	39.8	136.5	56.18	40.5	138.7	52.27	43.0	121.5	47.61	40.3	118.1	52.19	40.1	130.0	48.85	41.9	116.4
July.....	55.08	40.4	136.4	56.25	40.3	139.5	49.65	41.4	119.6	51.34	41.5	124.1	51.85	39.7	131.1	47.45	41.2	115.1
August.....	51.68	37.7	137.2	54.71	39.1	139.9	46.79	39.9	118.4	53.57	42.5	125.9	51.45	39.6	130.0	46.56	40.2	115.8
September.....	55.66	40.3	139.0	56.50	39.9	141.5	48.34	40.5	118.4	55.28	43.4	127.5	53.70	40.3	132.3	49.20	42.2	117.1
October.....	57.73	41.2	141.1	58.15	40.7	142.9	49.60	41.4	119.8	53.74	42.5	127.0	54.35	41.0	132.6	49.57	42.1	117.5
November.....	58.06	41.2	141.7	58.73	41.0	143.4	48.93	40.7	120.1	52.16	41.1	126.8	56.10	42.0	133.5	50.48	42.3	119.2
December.....	59.18	41.8	141.4	60.05	41.6	144.3	50.98	42.2	120.6	53.92	42.5	126.5	57.83	42.6	135.6	50.26	42.0	119.7
1948: January.....	59.03	41.5	142.0	59.48	41.1	144.6	49.67	40.4	122.5	51.45	40.7	126.3	56.36	41.8	134.7	49.91	41.8	119.2
February.....	57.44	40.8	140.5	58.52	40.5	144.5	48.39	39.5	122.6	50.44	40.1	126.3	55.47	41.1	134.9	50.09	41.6	119.3
March.....	57.79	40.8	141.4	59.88	41.3	145.0	49.14	40.1	122.8	49.76	39.8	125.1	55.70	41.0	135.5	50.20	41.5	120.7
April.....	56.77	39.8	142.4	60.13	41.2	145.8	47.50	38.6	123.6	49.65	39.8	125.0	54.96	40.4	136.0	49.90	41.4	120.5
May.....	57.21	40.5	142.0	60.49	41.3	146.3	49.74	40.1	124.6	50.98	40.2	127.3	55.11	40.5	136.7	50.22	41.2	121.7
Iron and steel and their products—Continued																		
	Tools (except edge tools, machine tools, files, and saws)			Hardware			Plumbers' supplies			Stoves, oil burners, and heating equipment, not elsewhere classified			Steam and hot-water heating apparatus and steam fittings			Stamped and enameled ware and galvanizing		
			Cents			Cents			Cents			Cents			Cents			Cents
1947: Average.....	\$24.49	39.7	61.8	\$23.13	38.9	59.3	\$25.80	38.2	67.6	\$25.25	38.1	66.6	\$26.19	37.6	69.7	\$23.92	38.1	62.7
1948: January.....	29.49	44.7	66.2	25.24	40.9	62.1	27.13	39.0	69.6	26.07	38.7	67.8	30.98	42.5	73.2	26.32	39.4	66.5
1947: May.....	50.86	42.5	119.8	49.15	41.7	117.9	49.92	40.0	124.7	50.38	40.2	124.9	51.39	40.1	128.2	49.96	40.1	124.7
June.....	51.22	42.4	120.7	49.53	41.4	119.5	51.81	40.4	128.3	51.00	40.2	126.9	53.72	40.8	131.6	50.34	39.9	126.1
July.....	49.40	41.0	120.4	49.29	41.0	120.1	52.45	40.3	130.1	50.65	40.0	126.6	52.74	39.6	133.1	50.11	39.3	127.4
August.....	50.10	41.0	122.1	48.19	40.2	121.0	49.93	38.9	128.5	49.75	39.0	127.5	50.60	38.1	132.9	50.40	39.5	127.6
September.....	52.39	42.2	124.3	50.43	41.3	122.2	52.38	40.0	131.0	53.32	40.9	130.5	54.54	40.4	135.2	51.72	39.9	129.7
October.....	52.47	42.1	124.8	51.22	41.7	122.8	54.65	40.7	134.3	55.15	41.6	132.6	55.46	41.1	135.0	52.40	40.4	129.8
November.....	52.97	42.2	125.5	51.58	41.6	123.3	56.42	41.4	136.4	53.39	40.1	133.1	57.64	41.8	138.0	52.81	40.5	130.5
December.....	54.44	43.0	126.6	52.55	42.2	124.5	57.00	41.6	137.0	56.22	42.0	133.9	58.66	42.2	138.9	54.72	41.5	132.0
1948: January.....	54.24	42.6	127.3	53.29	42.4	125.6	55.61	40.8	136.5	54.24	40.3	134.5	54.87	40.3	136.3	53.65	40.7	131.9
February.....	54.02	42.3	127.8	52.79	42.3	124.9	55.26	40.4	136.7	54.59	40.2	135.8	57.07	41.3	138.3	52.42	40.0	131.1
March.....	54.68	42.6	128.7	52.63	42.0	125.2	56.54	41.2	137.4	54.12	40.1	135.2	56.53	40.9	138.0	52.78	40.3	131.1
April.....	54.15	41.9	129.3	52.05	41.6	125.1	56.27	40.6	138.6	54.34	39.9	136.3	56.13	40.7	137.8	52.93	40.1	132.1
May.....	54.01	41.6	129.9	50.84	40.4	125.3	56.93	41.0	138.8	54.23	39.7	136.6	56.88	40.8	139.7	53.75	40.3	133.2

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries¹—Continued

Year and month	Iron and steel and their products—Continued																	
	Fabricated structural and ornamental metalwork			Metal doors, sash, frames, molding, and trim			Bolts, nuts, washers, and rivets			Forgings, iron and steel			Screw-machine products and wood screws			Steel barrels, kegs, and drums		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$27.95	38.5	Cents 72.7				\$26.04	37.7	69.0	\$29.45	38.4	Cents 76.7						
1941: January.....	31.01	41.8	74.3				29.58	41.9	70.6	36.75	45.0	81.8						
1947: May.....	53.07	41.8	126.9	\$56.06	42.9	130.7	53.51	42.1	126.8	60.22	41.3	145.9	\$53.37	42.3	126.2	\$51.75	40.5	127.1
June.....	54.90	42.0	130.6	55.45	42.7	129.1	54.49	41.5	131.1	61.93	41.1	150.8	53.79	42.1	127.8	53.49	41.0	130.1
July.....	53.54	40.7	131.6	52.42	40.8	128.6	51.88	40.0	129.5	59.07	39.7	148.9	52.93	41.4	127.8	53.04	40.3	131.1
August.....	55.64	41.7	133.4	54.12	41.2	131.5	52.45	40.0	131.0	57.42	38.7	148.4	52.38	40.8	128.4	53.38	40.3	132.1
September.....	55.87	41.6	134.4	55.75	42.0	132.8	53.08	40.2	131.7	62.38	40.9	152.6	53.91	41.9	128.5	55.08	40.7	135.1
October.....	57.60	42.6	135.2	56.48	42.0	134.4	56.52	42.1	133.9	65.54	41.8	156.9	55.02	42.1	130.6	52.13	39.4	132.1
November.....	57.31	42.0	136.8	57.11	42.7	133.9	55.98	41.3	135.3	65.00	41.4	157.2	54.55	41.6	131.1	53.81	40.8	132.1
December.....	58.81	42.7	137.8	58.97	43.5	135.4	57.79	42.5	135.9	67.20	42.2	159.1	56.77	43.0	131.9	57.08	42.5	134.1
1948: January.....	55.76	41.1	135.6	56.49	42.0	134.6	55.68	40.6	136.9	65.74	41.6	158.1	56.54	42.7	132.4	55.31	41.0	135.1
February.....	55.31	40.9	135.3	55.88	41.7	134.2	57.38	42.0	136.4	65.51	41.4	158.3	56.62	42.8	132.4	51.35	38.2	134.1
March.....	56.15	41.1	137.1	57.35	41.1	138.5	59.20	43.1	137.2	64.42	40.8	157.9	56.99	42.9	132.7	53.16	39.5	134.1
April.....	55.77	40.8	136.5	57.97	41.2	139.2	58.44	42.5	137.5	63.10	40.0	157.7	56.30	42.4	132.7	53.49	39.2	136.1
May.....	57.16	41.2	138.8	58.55	41.0	141.2	57.88	42.2	137.1	62.64	40.0	156.6	56.06	42.1	133.1	55.13	40.0	137.1
Electrical machinery																		
Firearms			Total: Electrical machinery			Electrical equipment			Radios and phonographs			Communication equipment			Total: Machinery, except electrical			
1939: Average.....	\$27.28	41.3	Cents 66.0	\$27.09	38.6	70.2	\$27.95	38.7	72.2	\$22.34	38.5	58.1	\$28.74	38.3	75.1	\$29.27	39.3	74.0
1941: January.....	35.09	48.6	72.2	31.84	42.4	75.1	33.18	43.4	76.5	24.08	38.2	63.2	32.47	41.4	78.4	34.36	44.0	78.1
1947: May.....	56.38	41.3	136.6	50.24	39.8	126.4	52.65	40.1	131.4	44.57	39.1	113.9	46.52	39.1	118.9	55.20	41.4	133.4
June.....	57.54	41.6	138.3	51.57	39.8	129.5	54.04	40.5	133.5	43.98	38.2	115.1	49.62	38.8	127.7	56.30	41.3	136.2
July.....	56.69	41.0	138.4	52.00	39.8	130.8	53.84	40.1	134.4	46.17	39.6	116.6	50.57	38.7	130.6	56.06	40.9	137.1
August.....	56.65	40.8	138.9	51.53	39.2	131.4	53.50	39.6	135.0	44.29	38.0	116.7	51.18	38.9	131.6	55.74	40.5	137.7
September.....	58.51	41.8	140.1	53.46	40.4	132.5	55.05	40.5	136.0	47.24	40.0	118.2	53.66	40.2	133.5	57.36	41.1	139.5
October.....	57.90	41.2	140.5	54.10	40.6	133.1	55.35	40.6	136.4	47.98	40.2	119.3	55.81	41.4	135.0	57.87	41.3	140.6
November.....	58.53	41.1	142.4	54.32	40.6	133.9	55.76	40.6	137.4	47.61	39.8	119.7	55.94	41.4	135.2	57.92	41.2	140.4
December.....	60.01	42.0	142.9	55.34	41.1	134.6	56.99	41.2	138.4	48.59	40.4	120.3	56.15	41.7	134.8	59.67	42.2	141.3
1948: January.....	59.88	41.8	143.4	54.82	40.5	135.2	56.77	40.8	139.1	47.56	39.6	120.2	54.64	40.5	135.1	59.13	41.8	141.5
February.....	60.80	42.1	144.6	54.50	40.4	134.8	56.11	40.6	138.2	47.00	39.2	120.0	55.83	41.1	135.9	58.65	41.4	141.7
March.....	62.33	42.7	146.0	54.41	40.3	135.0	56.23	40.5	138.8	47.00	39.2	119.9	54.78	40.5	135.5	59.12	41.6	142.1
April.....	61.16	41.8	146.3	53.86	39.9	135.0	55.70	40.2	138.7	47.01	39.1	120.1	53.49	39.6	135.3	59.26	41.5	142.9
May.....	61.78	41.9	146.5	53.70	39.6	135.7	55.41	39.9	139.0	46.98	38.8	121.2	53.59	39.3	136.4	59.17	41.1	143.8
Machinery, except electrical—Continued																		
Machinery and machine-shop products			Engines and turbines			Tractors			Agricultural machinery, excluding tractors			Machine tools			Machine-tool accessories			
1939: Average.....	\$28.76	39.4	Cents 73.0	\$28.67	37.4	76.7	\$32.13	38.3	83.9	\$26.46	37.0	71.6	\$32.25	42.9	75.2	\$31.78	40.9	77.7
1941: January.....	34.00	43.7	77.7	36.50	44.1	82.7	36.03	41.5	86.8	29.92	39.5	75.7	40.15	50.4	79.7	37.90	50.0	75.5
1947: May.....	54.44	41.6	130.7	58.74	41.2	142.8	56.95	39.9	142.6	53.18	40.0	133.0	57.13	42.1	135.7	58.92	41.7	141.4
June.....	55.53	41.5	133.6	60.20	41.2	146.0	57.57	40.0	144.7	55.80	40.8	136.8	58.31	42.2	138.1	59.14	41.6	143.2
July.....	55.00	40.8	134.9	59.51	40.3	147.7	57.77	40.1	144.0	56.83	41.0	138.5	56.78	41.6	136.6	58.42	41.2	143.0
August.....	55.07	40.9	135.3	61.34	40.9	151.0	57.67	40.0	144.3	56.29	40.3	139.2	57.77	41.4	139.4	57.43	39.9	144.7
September.....	56.41	41.3	137.0	60.16	40.5	149.4	59.08	40.7	145.0	57.97	40.6	141.7	58.69	41.8	140.5	61.16	41.2	148.6
October.....	56.75	41.3	137.4	58.72	39.6	148.9	60.17	41.1	146.5	58.36	40.9	143.9	59.25	42.1	140.8	61.42	41.4	148.2
November.....	57.03	41.4	138.1	62.04	41.2	151.6	60.13	41.1	146.4	55.91	39.6	141.5	59.53	41.9	141.2	61.30	41.1	149.4
December.....	59.22	42.7	139.1	61.14	40.5	151.9	60.24	41.3	145.9	57.85	40.6	142.4	61.34	43.1	142.4	63.47	42.4	149.7
1948: January.....	58.33	42.0	138.9	62.79	41.3	152.9	60.10	41.1	146.2	57.84	40.4	143.3	59.64	42.0	142.0	63.58	42.2	150.8
February.....	58.11	41.8	139.2	62.66	41.6	152.7	59.40	40.6	146.4	57.80	40.4	143.2	60.54	42.3	143.2	63.59	42.2	150.8
March.....	58.29	41.8	139.5	63.31	41.6	152.5	59.43	40.6	146.4	59.55	41.0	145.1	60.58	42.3	143.3	62.30	41.8	149.1
April.....	58.63	41.7	140.3	62.47	41.0	153.0	60.08	39.4	152.6	58.87	40.5	145.5	60.37	42.0	143.9	63.50	42.0	151.3
May.....	59.05	41.7	141.2	63.46	41.2	154.3	61.83	34.2	151.4	59.44	40.7	146.1	60.81	42.1	144.6	62.98	41.7	151.5

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries 1—Con.

MANUFACTURING—Continued

Year and month	Machinery, except electrical—Continued																	
	Textile machinery			Typewriters			Cash registers; adding, and calculating machines			Washing machines, wringers, and driers, domestic			Sewing machines, domestic and industrial			Refrigerators and refrigeration equipment		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$26.19	39.8	Cents 66.0	\$23.98	37.3	Cents 64.3	\$30.38	37.2	Cents 81.2			Cents			Cents			Cents
1941: January	30.13	44.6	67.7	26.40	39.1	67.5	34.78	41.4	84.6									
1947: May	54.10	42.6	126.9	50.75	41.6	121.9	61.68	42.3	146.8	\$54.89	42.5	129.1	\$56.25	41.7	135.5	\$53.19	40.4	131.7
June	54.88	42.6	128.9	51.58	42.8	120.9	63.67	41.9	151.0	55.16	41.8	131.8	58.97	41.7	141.5	54.77	40.4	135.6
July	54.79	41.9	130.1	52.33	43.7	119.8	60.35	40.6	149.0	54.85	41.6	131.8	58.43	41.0	142.5	55.37	40.8	135.6
August	51.91	40.2	129.1	51.22	40.5	126.5	59.52	40.2	148.7	52.82	40.1	131.6	56.35	40.0	140.9	52.22	38.5	135.6
September	56.08	42.2	132.9	51.91	40.6	128.0	63.21	42.1	151.3	54.17	41.0	132.0	60.72	42.0	145.4	54.18	39.5	137.3
October	55.77	42.1	132.5	54.04	42.0	128.8	63.82	42.3	152.3	57.13	42.4	134.6	62.27	42.5	146.9	56.33	40.7	138.3
November	56.88	42.1	135.5	55.54	42.5	130.6	63.29	42.1	151.8	57.96	42.7	135.8	62.17	42.4	146.5	54.41	39.8	136.7
December	58.56	43.1	135.8	55.89	42.9	130.1	65.67	42.9	153.7	60.42	43.7	138.4	63.21	42.9	147.2	57.05	41.2	138.4
1948: January	59.21	43.1	137.4	55.59	42.6	130.5	65.39	42.4	155.7	58.28	42.6	136.9	62.74	42.4	147.6	57.62	41.0	138.6
February	59.50	42.8	139.0	55.68	42.4	131.2	64.11	41.6	155.4	57.69	41.8	138.2	63.14	42.8	147.6	52.55	38.1	137.8
March	61.40	43.7	140.6	54.62	42.0	130.1	65.30	42.2	156.1	56.38	41.2	137.0	63.90	43.0	148.3	55.51	39.9	139.2
April	61.01	43.2	141.0	54.63	42.0	130.1	65.62	42.1	157.3	58.15	42.1	138.3	62.59	42.3	147.2	55.99	40.2	139.1
May	61.28	43.0	142.5	53.31	41.2	129.4	64.55	41.5	157.0	57.39	41.3	139.0	64.89	41.8	155.1	56.57	40.5	140.4
Transportation equipment, except automobiles																		
Year and month	Total: Transportation equipment, except automobiles			Locomotives			Cars, electric- and steam-railroad			Aircraft and parts, excluding aircraft engines			Aircraft engines			Shipbuilding and boatbuilding		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average	\$30.51	38.9	Cents 78.5	\$28.33	36.7	Cents 77.1	\$26.71	36.0	Cents 74.1	\$30.34	41.5	Cents 74.5	\$36.58	44.1	Cents 83.5	\$31.91	38.0	Cents 83.5
1941: January	35.69	43.1	82.8	34.79	42.8	81.4	29.57	38.5	76.8	34.13	44.7	77.6	42.16	47.2	89.2	37.69	42.0	89.3
1947: May	55.31	40.2	137.6	59.09	40.2	146.9	54.80	41.4	132.3	52.42	39.5	132.8	54.77	39.6	138.3	57.91	40.4	143.3
June	55.59	40.1	138.7	59.10	40.0	147.8	55.76	41.1	135.6	52.58	39.2	134.1	55.44	38.8	142.8	57.79	40.7	142.1
July	56.02	40.1	139.5	59.26	39.7	149.4	56.83	41.7	136.4	54.48	39.7	137.2	56.19	39.2	143.5	56.77	39.9	142.1
August	55.75	39.6	140.6	61.75	40.6	152.2	51.89	38.6	134.3	55.30	40.0	138.1	56.58	39.2	144.3	56.93	39.3	144.7
September	56.54	39.7	142.4	64.69	41.3	156.7	55.03	39.9	137.8	54.44	39.3	138.6	58.43	40.0	146.0	57.71	39.5	146.2
October	58.07	40.4	143.7	62.32	40.6	153.4	58.09	41.4	140.4	56.01	40.2	139.5	59.19	40.5	146.1	59.31	39.8	149.0
November	56.42	38.6	146.2	61.64	39.8	154.9	57.61	40.4	142.5	55.48	39.3	141.3	57.52	39.4	146.1	55.20	36.1	152.9
December	59.79	40.8	146.5	63.63	40.7	156.5	59.84	41.4	144.7	57.12	40.6	140.6	60.39	41.2	146.5	61.74	40.5	152.5
1948: January	59.56	40.3	147.9	62.34	40.1	155.3	58.51	40.7	143.9	55.53	39.4	140.8	59.30	40.6	146.1	64.05	40.9	156.7
February	58.67	39.6	148.2	61.01	39.2	155.5	58.02	40.2	144.2	56.13	39.9	140.6	58.29	40.1	145.2	61.54	38.9	158.2
March	59.40	40.3	147.2	63.46	40.2	157.9	58.90	40.9	143.9	56.71	40.1	141.4	59.53	40.6	146.7	62.07	40.3	153.9
April	59.89	40.5	147.8	64.96	40.5	160.4	58.70	40.9	143.7	57.75	40.6	142.1	60.33	40.5	149.1	62.04	40.2	154.1
May	59.30	40.0	148.1	64.57	40.1	161.0	58.07	40.2	144.6	57.74	40.4	142.8	61.02	40.9	149.4	60.40	39.4	153.1
Transportation equipment, except automobiles—Con.																		
Year and month	Motorcycles, bicycles, and parts			Automobiles			Total: Nonferrous metals and their products			Smelting and refining, primary, of nonferrous metals			Alloying; and rolling and drawing of nonferrous metals, except aluminum			Clocks and watches		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average			Cents 77.7	\$32.91	35.4	Cents 92.9	\$26.74	38.9	Cents 68.7	\$26.67	38.2	Cents 69.9	\$28.77	39.6	Cents 72.9	\$22.27	37.9	Cents 58.7
1941: January			75.8	37.69	38.9	96.9	30.47	41.4	73.6	29.21	38.7	75.5	35.96	44.0	81.8	23.90	38.9	61.4
1947: May	\$54.60	41.8	130.7	55.96	38.3	146.3	51.15	40.6	126.0	52.87	41.4	127.8	53.01	39.8	133.0	45.07	40.1	112.4
June	55.52	41.4	134.1	57.48	38.7	148.5	52.06	40.5	128.6	54.20	41.6	130.3	55.10	39.7	137.9	45.82	40.0	114.5
July	56.35	42.3	133.3	56.44	37.7	149.6	51.12	39.7	128.9	53.89	41.3	130.4	54.13	39.2	138.1	44.58	39.1	114.0
August	55.58	41.0	135.5	55.76	37.2	150.0	51.07	39.5	129.4	53.98	40.8	132.2	52.62	38.0	138.4	45.03	39.1	115.1
September	55.94	41.0	136.6	59.35	39.2	151.5	52.62	40.2	130.9	55.82	41.2	135.5	54.37	38.9	139.6	46.87	40.4	116.0
October	58.94	42.5	138.8	60.30	39.5	152.6	53.59	40.8	131.2	54.89	40.9	134.2	55.19	39.4	140.1	47.54	40.8	116.7
November	58.94	42.0	140.4	61.30	39.8	154.0	54.27	41.1	132.0	55.69	41.2	135.1	55.93	39.7	141.0	48.64	41.4	117.5
December	58.96	42.3	139.3	64.64	41.4	156.3	55.53	41.8	132.7	55.44	41.2	134.6	57.26	40.5	141.2	48.69	41.9	116.4
1948: January	55.33	40.3	137.3	60.96	39.6	153.8	55.06	41.2	133.6	55.85	41.1	136.0	57.30	40.4	141.8	47.63	40.2	118.5
February	55.65	39.8	140.0	59.00	38.1	154.8	55.07	41.2	133.8	55.58	41.0	135.7	57.73	40.6	142.2	48.59	41.0	118.6
March	55.88	40.4	138.4	59.81	38.9	153.9	55.23	41.1	134.4	55.31	40.5	136.6	58.25	40.8	142.9	49.15	41.1	119.6
April	56.36	40.3	139.8	59.14	38.6	153.3	54.87	40.9	134.3	56.49	41.1	137.5	56.84	40.0	142.2	49.09	40.8	120.5
May	55.54	39.4	141.0	53.71	34.8	154.5	55.14	40.7	135.4	57.33	41.5	138.0	57.42	40.1	143.1	47.79	40.0	120.3

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries¹—Continued

MANUFACTURING—Continued

Year and month	Nonferrous metals and their products—Continued												Lumber and timber basic products					
	Jewelry (precious metals) and jewelers' findings			Silverware and plated ware			Lighting equipment			Aluminum manufactures			Total: Lumber and timber basic products			Sawmills and logging camps		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$26.36	39.4	66.0	\$26.03	40.7	64.3	\$25.73	37.1	69.3	\$27.49	39.3	69.9	\$19.06	39.0	48.9	\$18.29	38.4	47.7
1941: January.....	26.43	39.1	66.4	27.37	41.4	66.6	28.19	39.3	71.7	32.85	42.0	78.2	20.27	38.9	52.1	19.59	38.4	51.1
1947: May.....	47.52	40.5	118.0	58.50	45.8	127.8	50.87	39.5	128.2	48.52	39.2	124.2	43.06	42.0	102.5	41.95	41.7	100.0
June.....	47.34	40.7	117.6	58.97	45.7	129.2	50.44	38.7	130.5	49.20	39.0	126.7	45.04	42.8	105.3	44.14	42.5	104.0
July.....	44.44	39.0	114.7	58.72	45.3	130.0	47.74	36.7	130.2	48.86	38.4	127.2	43.57	42.2	103.3	42.86	42.1	101.0
August.....	46.40	39.8	117.2	57.20	44.1	129.9	48.78	37.4	130.5	49.34	38.9	126.6	45.32	43.3	104.8	45.05	43.1	104.0
September.....	50.32	42.0	120.4	60.93	46.1	132.1	50.02	38.4	130.4	49.74	38.6	128.7	45.41	42.8	106.2	44.58	42.5	104.0
October.....	52.97	43.6	122.2	61.31	46.4	132.1	51.73	39.3	131.7	52.02	39.7	130.0	45.23	42.6	106.3	44.09	42.2	104.0
November.....	53.39	42.7	125.5	61.65	45.9	134.4	52.51	40.0	131.4	52.15	39.8	130.9	45.30	42.2	107.4	44.27	41.9	105.0
December.....	55.53	44.4	125.4	63.80	47.2	135.3	54.11	40.5	133.6	52.86	40.1	132.0	45.65	43.2	105.6	44.20	42.8	103.0
1948: January.....	51.69	41.9	123.7	62.54	46.3	135.4	53.92	39.8	135.6	53.35	40.2	132.9	44.40	42.4	105.0	42.94	42.0	102.0
February.....	52.98	43.6	124.9	62.52	46.1	135.6	52.86	39.3	134.5	52.75	39.6	133.0	45.01	41.7	108.0	43.41	41.1	105.0
March.....	52.17	42.2	123.7	63.81	46.5	137.4	53.22	39.2	135.9	52.05	39.4	132.2	45.32	42.3	107.1	43.86	42.0	104.0
April.....	51.31	41.2	124.6	62.09	45.7	136.0	52.90	38.8	136.4	52.53	39.7	132.3	44.92	41.6	108.0	43.07	40.9	103.0
May.....	50.48	39.8	127.0	61.85	45.6	135.7	53.85	39.0	137.5	52.83	39.7	133.2	46.81	42.0	111.3	45.24	41.5	109.0
Lumber and timber basic products—Con.			Furniture and finished lumber products												Stone, clay, and glass products			
Planing and plywood mills			Total: Furniture and finished lumber products			Furniture			Caskets and other morticians' goods			Wood preserving			Total: Stone, clay, and glass products			
1939: Average.....	\$22.17	41.1	54.0	\$19.95	38.5	51.8	\$20.51	38.9	53.0	-----	-----	-----	-----	-----	\$23.94	37.6	51.1	-----
1941: January.....	22.51	40.5	55.4	20.90	38.7	54.0	21.42	39.0	55.2	-----	-----	-----	-----	-----	25.02	37.4	60.0	-----
1947: May.....	47.65	43.5	109.7	43.45	41.5	104.6	44.21	41.2	107.4	\$46.88	42.2	110.8	\$41.66	43.0	96.9	47.24	40.3	117.0
June.....	48.84	44.1	110.7	44.24	41.7	106.1	45.04	41.6	108.5	46.99	42.2	111.1	41.14	41.8	98.4	48.54	40.8	119.0
July.....	46.58	42.6	109.3	43.51	41.1	105.8	44.12	40.9	107.9	44.32	40.2	110.3	41.05	41.6	97.8	48.00	40.1	118.0
August.....	48.89	44.2	110.7	44.09	41.2	107.0	44.58	41.0	108.9	45.69	40.6	112.2	42.10	42.0	100.1	49.06	40.6	120.0
September.....	48.94	43.8	111.8	45.38	41.5	109.3	46.24	41.4	111.7	47.06	41.6	112.8	42.41	42.2	100.5	49.57	40.4	122.0
October.....	50.12	44.3	113.2	46.53	42.1	110.5	47.76	42.3	113.0	47.00	41.1	113.9	42.19	41.5	101.7	50.38	40.8	124.0
November.....	49.60	43.2	114.7	46.32	41.8	110.8	48.07	42.3	113.7	47.35	40.9	115.0	39.98	39.7	100.7	50.47	40.5	124.0
December.....	51.61	44.8	115.1	47.72	42.7	111.7	49.10	42.9	114.5	49.01	42.2	115.7	40.50	39.8	101.7	51.00	41.0	124.0
1948: January.....	50.67	43.9	115.2	47.02	41.9	112.2	48.54	42.2	115.1	48.52	41.8	115.7	39.71	39.2	101.4	50.10	40.0	121.0
February.....	51.31	43.8	117.1	46.68	41.4	112.7	48.38	41.9	115.5	48.85	41.8	115.5	36.95	35.8	103.1	49.98	39.8	121.0
March.....	51.06	43.8	116.6	47.08	41.8	112.6	48.58	42.1	115.6	49.21	42.3	115.6	39.59	38.6	102.6	51.41	40.8	121.0
April.....	52.20	44.3	118.0	46.34	41.0	113.1	47.64	41.1	116.1	48.23	41.3	116.7	41.15	40.2	103.8	51.75	40.7	127.0
May.....	52.69	44.2	120.2	46.51	41.0	113.5	47.78	41.1	116.4	47.47	40.6	116.5	42.18	40.9	105.6	52.25	40.6	128.0
Stone, clay, and glass products—Continued																		
Glass and glassware			Glass products made from purchased glass			Cement			Brick, tile, and terra cotta			Pottery and related products			Gypsum			
1939: Average.....	\$25.32	35.2	72.1	-----	-----	\$26.67	38.2	69.9	\$20.55	37.8	54.3	\$22.74	37.2	62.5	-----	-----	-----	-----
1941: January.....	28.02	36.3	77.2	-----	-----	26.82	37.9	70.9	21.74	36.9	58.7	22.92	36.4	63.5	-----	-----	-----	-----
1947: May.....	48.66	39.3	123.9	\$41.94	40.8	102.8	44.46	39.3	113.2	45.77	40.6	112.3	45.45	38.9	117.1	\$52.05	45.8	113.0
June.....	50.42	40.0	126.4	42.93	40.8	105.3	51.59	42.7	120.8	45.66	41.0	110.9	45.78	38.7	118.6	52.55	45.3	116.0
July.....	49.34	38.6	128.1	40.87	39.6	103.1	51.72	41.9	123.5	45.25	40.5	111.3	44.86	37.9	119.2	54.91	46.1	118.0
August.....	50.40	39.5	128.0	41.88	40.2	104.2	52.93	42.5	124.4	46.06	40.9	112.1	46.48	38.8	120.1	55.39	45.7	121.0
September.....	51.57	39.2	131.7	42.91	40.1	107.1	52.68	41.8	126.1	46.51	40.9	113.3	46.14	38.5	120.7	54.68	45.0	121.0
October.....	52.27	39.4	132.8	44.41	41.1	108.1	52.32	42.0	124.5	47.37	41.3	114.3	48.18	39.6	122.1	56.70	45.9	124.0
November.....	53.05	39.2	135.4	43.87	40.4	108.5	52.19	41.9	124.5	46.81	40.5	114.8	48.25	39.4	122.7	56.35	45.3	124.0
December.....	53.07	39.5	134.4	46.16	42.3	109.2	51.94	42.0	123.7	47.46	41.2	114.6	48.55	39.2	123.8	56.53	45.6	124.0
1948: January.....	52.40	38.0	138.3	44.48	41.1	108.3	51.21	41.4	123.7	46.74	40.5	115.0	47.32	38.2	123.4	55.94	45.3	124.0
February.....	53.00	38.8	136.8	44.18	40.0	110.5	51.07	41.7	122.6	45.52	38.9	116.3	46.98	38.5	123.0	54.58	44.4	122.0
March.....	54.42	40.0	136.2	43.96	40.5	108.5	51.72	42.0	123.1	47.54	40.5	116.6	48.17	39.4	123.3	55.71	45.0	123.0
April.....	54.12	39.9	135.5	43.16	39.6	108.9	53.27	42.0	126.9	48.39	40.6	118.6	48.45	39.2	124.9	58.98	46.8	126.0
May.....	53.44	39.3	136.0	44.37	40.4	109.9	55.85	42.6	131.1	49.75	41.1	120.6	48.09	38.7	126.3	60.35	47.3	127.0

See footnotes at end of table.

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TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries 1—Con.

MANUFACTURING—Continued

ic products

awmills and
gging camps

Avg.
wkly.
hours

Avg.
wkly.
earnings

41.7

42.5

42.2

41.9

42.8

42.0

41.1

40.9

41.5

40.0

39.8

40.8

40.7

40.6

40.5

40.4

40.3

40.2

40.1

40.0

39.9

39.8

39.7

Year and month	Stone, clay, and glass products—Continued												Textile-mill products and other fiber manufactures					
	Lime			Marble, granite, slate, and other products			Abrasives			Asbestos products			Total: Textile-mill products and other fiber manufactures			Cotton manufactures, except smallwares		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average			Cents	\$26.18	36.9	Cents				\$24.43	39.0	Cents	\$16.84	36.6	Cents	\$14.26	36.7	Cents
1941: January				24.29	34.6	71.4				27.26	41.3	66.0	18.01	36.9	48.8	15.60	37.2	41.9
1947: May	\$47.19	46.2	101.7	46.67	42.9	108.5	50.10	39.6	126.4	52.58	42.6	123.5	39.89	38.9	102.5	37.73	38.8	97.4
June	48.45	46.0	104.5	46.07	42.2	108.5	48.66	39.1	124.4	54.21	42.9	126.4	39.54	38.6	102.4	37.10	38.3	97.0
July	47.23	44.9	104.2	45.48	42.1	107.9	50.00	39.3	127.3	54.90	43.3	126.8	39.48	38.4	102.8	37.21	38.3	97.3
August	48.90	44.8	108.9	46.61	41.4	112.6	51.26	39.2	130.6	53.53	42.2	127.7	39.44	38.2	103.2	37.50	38.4	97.7
September	49.23	45.0	108.1	47.56	42.2	112.7	54.57	40.3	135.6	52.30	41.3	126.6	41.39	39.5	104.8	38.55	39.2	98.5
October	51.06	46.1	108.5	48.60	42.5	114.3	54.30	40.4	134.5	52.57	41.3	127.3	41.94	39.7	105.5	39.22	39.6	99.1
November	50.33	45.8	108.9	46.27	40.2	115.2	55.68	40.7	137.0	54.05	41.9	129.2	43.73	40.1	109.0	42.47	40.4	105.1
December	50.48	46.4	108.5	48.68	41.9	116.0	60.68	44.0	137.3	53.85	41.8	128.9	45.15	41.0	110.0	43.64	41.1	106.1
1948: January	49.10	44.2	109.4	46.89	40.6	115.3	59.07	44.4	133.1	53.98	41.4	130.5	45.19	40.5	111.5	43.81	40.7	107.7
February	47.86	43.7	109.1	46.23	40.4	114.6	58.38	42.6	137.2	54.04	40.9	132.2	45.79	40.2	113.9	43.43	40.1	108.3
March	50.58	45.8	110.2	47.57	40.9	116.2	60.62	42.6	142.4	54.49	41.3	131.8	46.32	40.6	114.0	43.98	40.7	108.1
April	52.08	46.3	112.7	47.97	40.9	116.0	59.02	41.5	142.3	55.11	41.2	133.8	45.46	39.9	113.8	43.08	40.1	107.6
May	52.41	46.1	113.6	48.82	41.1	118.3	61.04	41.9	145.7	55.45	41.3	134.0	45.19	39.6	114.1	42.57	39.6	107.6

Stone, clay, and
glass products

37.6

37.4

40.3

40.8

40.1

40.6

40.4

40.8

40.5

41.0

40.0

39.8

40.8

40.7

40.6

40.5

40.4

40.3

Textile-mill products and other fiber manufactures—Continued																		
Cotton smallwares				Silk and rayon goods			Woolen and worsted manufactures, except dyeing and finishing			Hosiery			Knitted cloth			Knitted outerwear and knitted gloves		
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average.....	\$18.22	39.0	47.4	\$15.78	36.5	42.9	\$19.21	36.4	52.8	\$18.89	35.6	53.6	\$18.15	38.4	46.8	\$17.14	37.0	46.1
1941: January.....	19.74	39.3	50.3	16.53	35.7	46.1	21.78	37.9	57.6	18.51	33.8	55.0	19.90	37.9	50.3	17.65	35.8	48.9
1947: May.....	39.60	39.1	101.4	41.73	41.0	101.9	45.28	39.2	115.8	36.42	35.9	101.4	40.06	40.3	98.5	35.51	37.6	93.9
June.....	38.85	38.5	101.0	40.97	40.3	101.7	45.75	39.4	116.0	35.39	35.2	100.5	40.32	40.3	98.2	35.11	37.0	94.1
July.....	39.68	39.1	101.6	41.17	40.3	102.3	45.33	39.1	116.0	36.37	35.3	103.0	40.91	40.8	99.1	34.51	36.8	92.6
August.....	38.58	38.2	100.9	41.65	40.0	104.3	42.28	36.6	115.6	38.08	36.8	103.4	41.11	40.7	100.1	35.42	37.6	92.6
September.....	40.67	39.7	102.4	43.23	40.9	105.7	46.99	40.2	116.9	39.48	37.7	104.9	41.71	40.5	102.7	35.86	37.5	95.1
October.....	40.49	39.1	103.5	43.57	41.0	106.2	46.70	39.7	117.8	41.00	38.3	106.9	42.21	41.1	102.1	38.01	38.8	96.9
November.....	40.13	38.7	103.6	44.84	41.2	108.8	46.95	39.6	118.8	42.11	38.7	108.7	42.53	40.8	103.5	38.30	38.7	98.0
December.....	42.35	40.5	104.5	46.48	42.3	110.0	49.12	41.2	119.2	42.95	39.1	109.8	44.18	41.9	104.5	38.02	38.5	97.8
1948: January.....	43.15	40.3	107.1	47.55	41.9	113.7	48.79	40.8	119.5	41.76	37.9	110.3	44.65	42.1	106.2	37.94	37.7	99.2
February.....	43.23	40.4	107.2	47.92	41.8	114.7	52.82	40.8	130.3	41.72	37.6	110.8	45.23	41.9	107.9	39.18	38.7	100.1
March.....	43.31	40.2	108.0	48.53	42.2	115.1	53.49	40.7	131.3	42.80	38.6	110.8	45.84	41.9	109.4	39.08	38.6	100.4
April.....	43.03	39.6	108.7	48.31	41.8	115.6	52.33	39.9	131.1	41.61	37.4	111.2	44.39	41.4	107.2	38.73	38.4	100.7
May.....	42.72	39.3	108.9	48.38	41.8	115.7	52.61	40.1	131.4	41.13	36.7	111.9	42.79	39.7	107.8	38.84	38.5	100.7

Knitted underwear

Dyeing and finishing
textiles, including
woolen and worsted

Carpets and rugs, wool

Hats, fur-felt

Jutegoods, except felts

Cordage and twine

	Textile-mill products and other fiber manufactures—Continued																	
	Knitted underwear			Dyeing and finishing textiles, including woolen and worsted			Carpets and rugs, wool			Hats, fur-felt			Jutegoods, except felts ¹			Cordage and twine		
			<i>Cents</i>			<i>Cents</i>			<i>Cents</i>			<i>Cents</i>			<i>Cents</i>			<i>Cents</i>
Average.....	\$15.05	36.9	41.0	\$20.82	38.6	53.5	\$23.25	36.1	64.4	\$22.73	32.2	70.7						
January.....	16.06	36.0	44.6	21.65	39.3	55.1	25.18	37.3	67.5	27.12	36.2	75.5						
May.....	35.18	39.0	90.4	45.62	41.1	110.8	48.30	41.2	117.5	46.81	36.4	128.9	\$42.12	43.4	98.5	\$39.11	39.2	99.6
June.....	34.85	38.8	90.1	46.13	41.6	110.9	49.02	41.3	118.8	48.88	37.5	131.1	41.13	43.0	97.4	38.26	37.9	101.2
July.....	34.65	38.4	90.2	44.37	40.1	110.4	49.80	40.6	122.8	47.47	36.5	130.2	37.92	41.0	94.1	38.71	38.2	101.4
August.....	34.60	38.2	90.4	45.31	40.5	111.6	47.43	39.4	120.6	45.67	34.7	131.2	36.40	41.0	90.8	39.10	38.6	101.4
September.....	36.30	39.5	91.8	47.89	41.9	114.2	52.38	41.0	127.9	47.44	35.9	133.4	37.51	41.4	90.6	40.00	38.8	103.0
October.....	36.50	39.3	93.0	47.16	41.5	113.6	53.53	41.4	129.5	48.33	37.0	131.1	37.27	41.1	90.6	41.70	40.1	104.1
November.....	37.41	39.5	94.7	48.16	41.2	116.7	53.99	41.6	130.1	47.10	36.2	130.3	37.60	41.5	90.6	42.55	40.4	105.3
December.....	38.17	40.2	95.1	50.25	42.7	117.5	54.91	42.2	130.6	51.52	39.1	132.1	38.21	41.2	92.7	44.13	41.3	106.8
January.....	37.77	39.4	95.9	51.04	42.3	120.4	55.23	41.9	132.2	50.17	37.8	132.8	41.75	40.8	102.4	44.63	41.3	108.1
February.....	37.76	38.9	96.9	51.80	42.2	122.7	55.35	42.0	131.9	51.79	38.7	132.8	42.28	40.1	105.3	44.44	40.8	109.1
March.....	38.89	39.5	98.1	51.85	42.3	122.7	55.79	42.1	132.7	50.36	37.2	134.8	42.44	40.0	106.0	43.65	40.6	107.9
April.....	38.72	39.1	98.8	51.44	41.8	122.9	55.18	41.4	133.6	48.58	35.3	137.9	42.93	40.6	105.7	42.21	39.1	107.9
May.....	37.88	38.3	98.7	50.67	41.3	122.6	56.22	41.8	134.8	49.94	36.7	136.4	42.69	40.1	106.4	41.80	38.8	108.4

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries ¹—Con

MANUFACTURING—Continued

Year and month	Apparel and other finished textile products																	
	Total: Apparel and other finished textile products			Men's clothing, not elsewhere classified			Shirts, collars, and nightwear			Underwear and neckwear, men's ²			Work shirts			Women's clothing, not elsewhere classified		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$18.17	34.5	52.7	\$19.32	33.2	58.1	\$13.75	34.6	39.8	\$14.18	35.4	40.1	\$11.03	35.8	30.9	\$19.20	33.9	56.7
1941: January.....	18.76	33.5	56.0	20.40	33.4	60.7	14.22	33.0	43.1	14.85	33.6	44.2	12.33	33.6	36.7	19.47	33.2	55.8
1947: May.....	35.36	35.8	98.8	41.49	37.2	110.5	32.01	36.9	86.7	32.41	35.1	92.9	25.11	34.5	73.0	41.58	34.6	116.4
June.....	35.77	36.0	99.4	41.35	37.2	110.4	31.54	36.8	85.7	33.55	36.4	91.6	24.91	34.3	72.6	41.87	35.0	118.2
July.....	36.50	35.8	102.0	40.17	36.5	109.8	31.24	36.3	86.2	33.79	36.0	93.8	26.56	36.2	73.5	43.81	34.8	124.1
August.....	36.57	35.2	103.8	38.66	35.1	109.0	30.74	36.0	85.2	31.51	34.5	91.4	25.54	35.4	72.2	45.49	34.6	128.4
September.....	37.64	36.0	104.6	41.06	36.8	110.6	32.38	36.9	87.8	33.05	35.5	93.2	25.59	34.6	74.0	45.78	35.0	127.6
October.....	38.78	36.9	105.1	42.78	37.9	112.0	33.42	37.8	88.5	35.00	36.9	94.9	25.15	33.7	74.5	46.91	35.8	127.7
November.....	37.09	36.4	101.9	42.24	37.5	111.6	33.75	38.0	88.9	35.09	36.5	96.1	24.90	34.1	72.8	43.82	35.3	121.7
December.....	39.00	37.1	105.2	43.11	37.7	113.6	34.12	38.1	91.8	35.56	37.3	95.3	24.32	34.1	71.2	46.76	36.2	127.4
1948: January.....	40.00	36.6	109.4	44.11	37.0	117.8	34.45	36.9	92.9	35.03	36.4	95.7	23.73	32.7	72.5	48.52	36.0	132.7
February.....	40.23	36.7	109.8	44.05	37.1	117.6	34.20	36.8	92.8	34.78	35.5	97.4	25.69	35.6	72.1	49.09	36.1	133.4
March.....	40.09	36.7	109.2	44.73	37.4	118.8	35.02	37.4	93.4	35.77	36.3	98.4	26.50	36.9	71.8	48.10	36.1	131.0
April.....	37.61	36.2	104.0	44.81	37.3	117.3	34.39	36.9	92.8	34.42	35.9	95.8	26.85	36.8	73.0	43.20	35.1	120.1
May.....	37.24	35.8	104.0	43.50	36.8	117.1	33.91	36.4	92.6	34.90	36.6	95.3	27.22	36.5	74.4	43.27	35.1	120.6
Apparel and other finished textile products—Continued																		
Year and month	Corsets and allied garments			Millinery			Handkerchiefs			Curtains, draperies, and bedspreads			Housefurnishings, other than curtains, etc.			Textile bags ³		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$17.15	37.5	45.6	\$22.19	33.8	63.6	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1941: January.....	17.24	35.6	48.2	22.31	30.5	64.8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1947: May.....	35.33	38.4	92.2	40.44	32.5	121.4	31.24	36.4	85.8	27.55	32.5	84.7	37.36	37.9	98.1	34.06	37.0	90.0
June.....	35.72	38.0	94.1	43.62	32.5	127.1	29.94	35.2	85.1	26.72	31.4	84.9	37.87	38.1	98.9	34.02	37.1	91.8
July.....	34.95	37.5	93.5	48.58	36.2	129.8	31.13	36.3	85.7	29.09	36.1	81.6	36.44	38.4	94.5	35.48	38.3	92.0
August.....	34.80	36.7	94.2	49.52	36.3	131.4	30.40	35.5	85.7	28.93	36.1	81.1	37.74	38.6	97.7	35.34	37.8	90.0
September.....	35.75	37.5	95.4	49.74	35.8	134.0	31.85	36.7	86.7	30.64	37.3	83.0	38.33	38.2	99.6	35.86	38.1	94.1
October.....	36.76	38.5	95.6	53.20	38.2	133.7	32.57	37.5	86.8	31.55	37.5	84.4	38.72	38.3	100.4	36.76	38.9	94.4
November.....	36.80	38.6	95.5	39.14	31.3	121.3	33.31	37.7	88.4	31.26	37.2	83.9	38.03	38.3	98.3	37.25	38.9	95.8
December.....	36.89	39.0	94.8	46.03	35.0	125.6	32.55	37.0	88.1	31.28	37.1	84.3	41.34	40.5	101.2	37.60	39.5	96.2
1948: January.....	37.37	38.0	98.5	53.14	37.3	136.5	30.46	34.4	88.4	31.05	36.8	85.6	38.54	38.2	99.9	37.20	38.9	95.0
February.....	37.07	37.9	97.9	57.84	39.3	141.5	32.66	36.4	89.7	30.17	35.9	85.4	36.83	37.7	96.5	36.23	38.0	93.2
March.....	38.14	38.5	99.3	52.77	36.9	139.4	34.21	37.1	92.2	30.73	35.4	88.2	38.29	38.1	100.0	35.80	37.1	94.4
April.....	37.39	37.8	99.1	49.81	35.9	136.3	33.09	36.1	91.7	29.40	33.3	89.1	38.46	38.2	100.1	36.24	37.1	97.0
May.....	35.85	35.8	100.3	42.88	31.7	132.9	31.66	34.8	90.9	29.95	32.9	91.2	36.90	36.7	99.1	37.66	38.4	98.0
Leather and leather products																		
Year and month	Total: Leather and leather products			Leather			Boot and shoe cut stock and findings			Boots and shoes			Leather gloves and mittens			Trunks and suitcases		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$19.13	36.2	52.8	\$24.43	38.7	63.4	-----	-----	-----	\$17.83	35.7	50.3	-----	-----	-----	-----	-----	-----
1941: January.....	20.66	37.3	55.4	25.27	38.3	66.2	-----	-----	-----	19.58	37.0	53.0	-----	-----	-----	-----	-----	-----
1947: May.....	39.45	38.1	103.5	49.65	40.7	122.0	37.32	37.7	100.6	37.78	37.8	100.0	31.38	34.6	90.8	40.35	38.5	104.0
June.....	40.12	38.1	105.3	50.44	40.5	124.1	38.62	38.1	102.5	38.30	37.7	102.0	31.42	35.0	90.7	42.34	39.6	108.0
July.....	40.30	38.2	105.5	51.11	40.4	126.1	39.06	38.4	103.1	38.49	37.8	101.8	32.42	35.6	91.4	40.62	38.4	105.0
August.....	40.25	38.1	105.7	51.19	40.0	127.7	39.86	39.1	103.4	38.32	37.7	101.8	32.33	35.7	91.2	42.09	39.4	107.0
September.....	41.89	39.1	107.2	52.66	41.0	128.3	40.14	39.2	103.2	40.12	38.8	103.5	33.45	36.3	92.7	43.07	39.5	109.0
October.....	42.18	39.0	108.2	52.52	40.7	128.7	39.19	38.3	103.7	40.41	38.7	104.6	34.43	36.4	94.5	46.15	40.9	111.0
November.....	41.93	38.3	109.5	52.82	40.6	129.7	38.92	37.2	106.0	39.98	37.8	105.9	33.88	36.3	93.4	47.61	42.2	113.0
December.....	42.67	39.1	109.2	53.65	41.3	130.0	41.36	39.3	106.3	40.87	38.7	105.6	33.91	36.3	93.1	45.53	40.9	118.0
1948: January.....	42.63	39.0	109.5	53.06	40.8	129.9	41.36	38.9	107.5	41.09	38.8	105.9	33.75	35.7	94.7	42.33	38.4	118.0
February.....	42.90	39.0	110.2	53.38	40.5	131.7	41.23	38.4	108.0	41.35	38.8	106.5	33.67	36.0	94.1	45.61	40.6	119.0
March.....	41.87	37.8	110.6	51.91	39.4	131.5	40.55	37.6	108.6	40.21	37.5	107.1	33.82	36.0	94.0	45.83	40.6	119.0
April.....	40.34	36.2	111.6	51.59	39.1	131.8	39.90	36.5	110.7	38.09	35.3	108.0	33.18	35.4	93.8	45.35	40.1	115.0
May.....	39.82	35.4	112.4	52.53	39.3	133.5	39.72	36.3	110.5	36.91	34.2	108.1	34.83	35.4	98.9	45.06	39.6	113.0

See footnotes at end of table.

es 1—Con

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries 1—Con.

MANUFACTURING—Continued

Year and month	Food																	
	Total: Food			Slaughtering and meat packing			Butter			Condensed and evaporated milk			Ice cream			Flour		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$24.43	40.3	Cents 60.7	\$27.85	40.6	Cents 68.6	\$22.60	46.7	Cents 48.4			Cents	\$29.24	46.2	Cents 62.6	\$25.80	42.3	Cents 60.5
1941: January.....	24.69	39.0	63.3	26.84	39.3	68.1	22.84	44.6	50.9				29.41	44.2	65.3	25.27	41.0	60.8
1947: May.....	47.71	43.0	111.0	53.37	44.0	121.4	43.91	46.3	94.8	\$49.52	48.3	102.6	47.36	45.8	100.9	51.82	47.8	108.5
June.....	48.27	43.2	111.9	54.40	44.5	122.2	45.60	47.4	95.9	50.57	48.7	103.9	48.81	46.7	102.1	55.55	49.8	111.5
July.....	48.40	43.2	112.1	56.82	44.5	128.2	44.75	47.0	95.5	50.18	48.1	104.4	49.62	46.7	103.4	57.71	50.5	114.5
August.....	49.45	43.4	114.0	54.33	43.0	126.7	46.20	47.7	96.4	49.21	47.2	104.2	50.84	46.9	105.2	59.69	50.1	119.3
September.....	49.04	43.4	112.9	55.31	43.4	127.6	45.65	47.4	96.1	49.66	46.9	105.9	50.12	45.7	105.9	59.91	49.9	120.1
October.....	49.61	42.8	115.9	54.98	43.2	127.3	45.58	46.3	98.1	49.24	46.5	105.8	49.86	45.5	106.4	59.01	49.0	120.3
November.....	49.90	42.5	117.3	61.31	46.9	130.5	46.05	46.1	99.5	48.54	45.7	106.2	49.40	44.3	107.2	59.15	48.6	121.8
December.....	50.93	43.3	117.5	61.57	47.7	129.1	46.98	46.5	100.4	49.32	45.9	107.4	49.87	44.8	107.3	56.45	47.6	118.7
1948: January.....	49.44	42.0	117.7	57.12	44.8	127.5	5.92	45.9	99.5	50.20	45.5	110.3	50.50	45.3	107.9	54.43	46.4	117.5
February.....	49.18	41.6	118.1	51.88	40.7	127.7	47.28	46.3	101.1	51.68	45.9	112.5	51.12	45.0	109.3	54.56	45.9	118.9
March.....	49.36	41.6	118.7	56.62	43.6	130.1	45.45	45.8	99.8	52.28	46.4	112.6	51.44	45.4	109.5	50.99	43.7	116.7
April.....	50.70	42.3	119.9	68.51	48.1	142.5	46.27	45.6	101.7	53.51	46.7	114.7	50.86	45.3	108.7	53.53	45.5	118.0
May.....	50.95	42.2	120.7	67.66	46.7	142.4	46.59	45.9	101.9	55.36	47.5	116.5	51.03	45.0	108.8	55.64	46.2	120.1
Food—Continued																		
Year and month	Cereal preparations			Baking			Sugar refining, cane			Sugar, beet			Confectionery			Beverages, non-alcoholic		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....			Cents	\$25.70	41.7	Cents 62.1	\$23.91	37.6	Cents 63.6	\$24.68	42.9	Cents 58.5	\$18.64	38.1	Cents 49.2	\$24.21	43.6	Cents 55.6
1941: January.....				26.46	41.1	64.4	22.73	35.0	65.0	24.03	38.5	63.0	19.19	37.6	51.1	25.28	42.0	60.2
1947: May.....	\$49.77	40.4	123.2	44.84	42.5	105.6	44.35	41.3	107.5	43.79	38.9	112.5	38.77	39.8	97.6	43.10	43.6	98.5
June.....	50.79	40.8	124.4	45.50	42.6	106.7	52.14	45.6	114.2	47.38	40.8	116.2	39.34	39.3	100.4	44.48	44.2	100.4
July.....	53.83	43.2	124.6	45.81	42.7	107.4	50.33	45.5	110.5	46.34	39.2	118.4	37.66	37.8	99.8	45.98	45.0	102.0
August.....	54.32	42.4	128.1	45.52	41.9	109.1	51.89	46.3	112.1	50.88	41.7	122.0	38.39	38.8	99.3	47.89	46.6	103.6
September.....	51.28	40.5	126.5	46.14	41.9	110.4	50.87	44.0	115.6	51.55	40.8	126.3	41.20	40.4	102.1	47.91	46.0	104.9
October.....	50.54	39.7	127.3	46.85	41.9	111.5	53.03	45.3	116.8	50.59	44.8	113.0	42.24	41.1	102.9	45.85	44.3	103.9
November.....	52.05	40.3	129.1	46.26	41.6	111.5	56.39	46.0	122.4	56.47	48.2	117.2	42.24	40.8	103.6	44.60	43.3	103.2
December.....	54.13	40.8	132.8	47.43	42.3	111.9	48.24	41.2	117.1	53.87	46.1	116.8	42.96	41.5	103.5	45.22	43.7	103.2
1948: January.....	54.10	40.5	133.5	47.03	41.6	113.1	45.66	38.0	120.1	50.45	39.0	129.3	40.82	39.6	103.4	45.05	43.0	105.5
February.....	55.58	40.6	136.9	49.30	43.6	113.2	44.66	37.9	111.7	55.30	42.4	130.5	40.94	39.3	104.5	44.99	42.9	104.8
March.....	52.46	38.7	135.6	47.38	41.9	113.1	49.30	41.0	120.2	50.11	38.7	129.6	40.96	39.1	105.0	44.93	43.0	104.4
April.....	54.50	39.8	137.0	48.00	42.1	113.8	52.57	43.2	121.7	50.19	38.9	130.2	41.22	38.8	106.4	45.46	43.7	104.1
May.....	55.56	40.5	137.4	49.30	42.7	114.7	52.07	42.4	122.9	49.79	37.6	133.7	39.23	37.7	104.0	45.75	43.9	104.4
Food—Continued																		
Year and month	Malt liquors			Canning and preserving			Total: Tobacco manufactures			Cigarettes			Cigars			Tobacco (chewing and smoking) and snuff		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$35.01	38.3	Cents 91.6	\$16.77	37.0	Cents 46.4	\$10.84	35.4	Cents 47.6	\$20.88	37.2	Cents 56.1	\$14.59	34.7	Cents 41.9	\$17.53	34.1	Cents 51.4
1941: January.....	34.57	36.4	95.2	16.67	33.0	51.0	17.89	35.7	50.1	22.38	37.3	60.0	15.13	35.0	43.2	18.60	34.9	53.7
1947: May.....	61.55	43.8	140.3	39.39	38.3	103.4	34.46	36.3	94.8	38.33	36.1	106.1	32.03	37.4	85.3	29.72	31.6	94.0
June.....	64.57	44.4	145.1	39.37	37.8	104.5	36.30	38.2	95.0	41.67	39.4	105.7	32.08	37.4	85.4	34.49	36.9	93.7
July.....	67.52	45.1	149.3	39.96	39.9	100.3	37.74	39.6	95.3	44.67	42.2	106.0	31.25	37.4	84.7	38.21	39.9	95.8
August.....	68.98	45.3	152.3	45.88	42.6	108.3	37.26	39.2	95.1	43.74	41.2	106.1	32.00	37.3	85.3	37.13	40.1	92.8
September.....	69.54	45.2	153.9	43.69	42.8	102.5	37.33	39.2	95.2	43.36	40.7	106.6	32.42	37.7	85.7	38.39	41.2	93.3
October.....	66.10	43.5	151.7	44.75	40.9	110.0	37.90	39.7	95.4	43.92	41.3	106.3	33.21	38.3	86.3	37.78	40.6	93.1
November.....	64.03	42.1	152.3	37.94	35.9	106.2	37.67	39.4	95.6	43.15	40.6	106.3	33.69	38.6	86.8	36.10	38.5	93.9
December.....	63.54	42.1	151.1	41.14	37.7	109.3	39.16	39.9	98.3	45.45	40.6	111.9	34.24	39.3	86.8	37.16	39.1	95.0
1948: January.....	61.03	40.4	151.0	41.10	37.3	110.2	37.97	38.6	98.4	44.74	39.4	113.5	32.64	38.1	86.0	35.38	37.1	95.5
February.....	62.25	40.9	152.0	42.73	38.4	111.8	35.04	36.2	96.8	37.93	33.9	112.0	32.59	37.9	85.7	35.89	37.2	96.5
March.....	62.57	41.2	151.6	40.77	36.5	112.0	36.52	37.7	96.8	42.99	38.2	112.4	32.12	37.5	85.2	35.78	36.9	97.1
April.....	65.24	42.5	153.2	41.65	36.9	113.2	37.19	38.2	97.3	44.35	39.6	111.9	32.13	37.4	85.7	36.32	37.1	97.9
May.....	65.31	42.5	153.7	41.33	36.7	113.4	37.12	37.7	98.4	44.32	38.9	113.9	31.80	36.9	85.8	36.91	37.3	99.1

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries¹—Cont

MANUFACTURING—Continued

Year and month	Paper and allied products															Printing, publishing, and allied industries		
	Total: Paper and allied products			Paper and pulp			Envelopes			Paper bags			Paper boxes			Total: Printing, publishing, and allied industries		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$23.72	40.1	Cents 59.2	\$24.92	40.3	Cents 62.0							\$21.78	40.2	Cents 54.7	\$32.42	37.4	Cents 86.5
1941: January.....	25.16	40.0	62.9	27.02	40.8	66.2							22.26	38.8	57.6	33.49	37.8	88.0
1947: May.....	48.79	43.1	113.3	52.84	44.7	118.2	\$45.25	43.0	106.5	\$40.42	39.1	103.6	44.30	41.2	107.7	59.55	40.1	146.8
June.....	49.95	42.9	116.5	54.83	44.5	123.1	45.96	43.0	107.3	41.69	39.6	105.4	44.87	41.3	108.8	59.76	39.9	140.0
July.....	51.06	42.9	119.0	56.36	44.5	126.6	44.72	42.1	107.4	42.30	38.8	109.4	45.44	41.4	109.9	59.37	39.6	140.0
August.....	50.72	42.4	119.6	56.30	44.1	127.6	44.96	41.0	110.7	41.89	38.4	109.3	44.92	40.8	110.4	59.48	39.4	139.0
September.....	51.99	42.9	121.0	57.14	44.5	128.3	47.02	42.2	112.5	42.05	38.2	110.2	46.53	41.6	112.2	61.61	40.2	139.0
October.....	52.22	43.0	121.5	57.10	44.4	128.7	46.97	42.1	112.8	43.67	39.3	111.3	47.37	42.1	112.7	61.62	40.0	134.0
November.....	52.80	43.2	122.2	57.40	44.4	129.2	46.52	41.9	112.0	43.17	39.0	110.6	48.06	42.7	114.3	62.30	40.0	135.0
December.....	53.69	43.8	122.6	58.21	44.9	129.5	47.35	42.2	112.2	45.29	40.7	111.3	49.44	43.3	114.4	63.37	40.4	136.0
1948: January.....	53.20	43.1	123.5	57.75	44.4	130.1	46.50	41.4	113.9	45.23	40.8	111.2	48.35	42.0	115.5	62.41	39.5	137.0
February.....	53.61	43.1	124.5	58.41	44.5	131.0	46.68	41.3	114.6	44.34	39.5	112.0	48.75	41.9	116.7	62.72	39.1	140.0
March.....	53.82	43.1	124.9	58.50	44.5	131.3	46.30	41.1	114.4	45.69	40.7	112.1	49.14	41.8	117.7	63.97	39.5	142.0
April.....	53.34	42.7	125.0	58.02	44.1	131.3	46.26	40.8	114.9	45.14	40.5	111.3	48.32	41.0	118.0	64.50	39.2	144.0
May.....	54.50	42.8	127.3	59.87	44.6	134.0	46.37	40.8	115.0	44.93	39.8	112.6	48.64	40.7	119.9	65.04	39.1	146.0
Printing, publishing, and allied industries—Continued																		
	Newspapers and periodicals			Printing; book and job			Lithographing			Total: Chemicals and allied products			Paints, varnishes, and colors			Drugs, medicines, and insecticides		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$37.58	36.1	Cents 100.4	\$30.30	38.3	Cents 80.4				\$25.59	39.5	Cents 64.9	\$28.48	40.5	Cents 70.4	\$24.16	39.7	Cents 61.2
1941: January.....	38.15	35.4	105.2	31.64	39.6	81.0				27.53	39.9	69.0	29.86	40.3	74.1	24.68	39.3	61.9
1947: May.....	67.10	38.9	169.9	56.41	40.6	139.7	\$57.73	41.2	140.3	49.80	41.1	121.0	52.36	42.5	123.6	43.19	40.3	107.2
June.....	67.16	38.4	171.9	56.81	40.6	140.6	58.31	41.3	141.1	50.59	41.1	123.2	52.81	42.5	124.4	43.49	39.9	109.1
July.....	66.53	38.2	171.3	56.77	40.5	140.8	57.55	40.5	142.1	51.00	40.9	124.7	53.37	42.3	126.3	43.50	39.1	111.4
August.....	67.74	38.5	173.6	55.95	40.0	140.6	57.86	40.1	143.6	51.27	40.9	125.2	53.76	42.1	127.9	45.68	39.9	114.4
September.....	69.40	39.0	175.3	58.32	40.8	143.6	60.51	51.2	146.7	51.81	41.0	126.3	53.55	41.8	128.4	46.43	39.5	117.3
October.....	69.18	38.7	175.8	58.63	40.7	145.1	60.16	41.1	146.2	52.67	41.4	127.3	53.93	41.9	129.0	47.90	40.4	118.8
November.....	69.78	38.6	177.6	59.35	40.7	146.9	62.19	42.4	146.7	53.15	41.3	128.7	55.06	41.9	131.6	47.35	40.0	118.8
December.....	71.45	39.1	179.1	60.22	41.1	147.9	62.91	42.3	148.6	53.73	41.5	129.3	55.11	42.0	131.4	47.90	40.4	118.8
1948: January.....	68.96	37.8	179.7	60.23	40.7	149.3	61.03	40.4	151.1	54.31	41.4	131.1	55.34	42.0	132.1	48.31	40.4	119.0
February.....	70.36	38.3	181.2	60.13	39.8	152.8	60.04	39.8	150.9	54.12	41.1	131.5	55.73	41.8	133.4	48.42	40.2	120.0
March.....	71.32	38.4	184.3	60.96	40.3	152.8	62.92	40.3	156.0	54.15	41.2	131.5	55.71	41.7	133.8	48.44	40.2	120.0
April.....	72.92	38.5	186.7	61.26	39.9	155.1	61.69	39.5	156.2	54.35	41.0	132.5	55.54	41.5	134.4	48.16	39.9	120.7
May.....	72.78	38.3	187.3	61.97	39.8	157.2	63.24	39.5	160.1	55.23	41.1	134.5	57.22	42.2	135.8	48.92	39.4	122.3
Chemicals and allied products—Continued																		
	Soap			Rayon and allied products			Chemicals, not elsewhere classified			Explosives and safety fuses			Ammunition, small arms			Cottonseed oil		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1939: Average.....	\$28.11	39.8	Cents 70.7	\$24.52	37.9	Cents 64.6	\$31.30	40.0	Cents 78.4	\$29.99	38.8	Cents 77.3	\$22.68	39.0	Cents 61.2	\$13.70	44.3	Cents 30.9
1941: January.....	29.58	40.0	74.0	27.26	39.2	69.6	33.10	40.3	82.2	31.56	37.8	83.5	24.05	38.6	62.3	15.55	44.6	33.1
1947: May.....	55.19	42.2	130.9	48.37	39.5	122.4	56.35	41.0	137.5	53.31	40.2	132.6	40.12	41.2	119.2	35.29	49.2	71.5
June.....	57.98	43.3	133.8	48.63	39.6	122.9	56.80	40.9	139.0	54.77	40.4	135.7	49.62	41.8	118.6	35.83	48.6	73.7
July.....	56.30	42.0	134.0	48.69	39.6	123.0	57.73	41.1	140.4	56.47	41.2	137.1	50.42	41.6	121.3	35.29	48.3	73.7
August.....	59.04	43.0	137.4	49.04	40.0	122.6	57.44	40.7	141.0	57.08	41.9	136.1	44.96	41.0	109.8	35.76	48.9	73.7
September.....	62.05	44.0	141.0	49.74	39.6	125.7	57.98	40.5	143.2	57.39	41.6	138.1	52.60	42.1	125.0	36.30	51.0	73.7
October.....	61.58	43.5	141.4	48.71	39.0	124.9	58.46	40.8	143.2	56.65	40.5	140.0	53.13	42.9	123.9	38.84	53.8	72.7
November.....	62.66	44.1	142.0	49.07	39.2	125.2	59.21	40.9	144.8	58.20	40.7	143.0	53.30	43.1	123.6	38.47	52.6	73.1
December.....	65.01	44.7	145.6	49.73	39.2	126.8	60.07	41.2	145.7	57.36	40.0	143.3	53.85	43.3	124.3	38.68	52.9	73.1
1948: January.....	64.69	44.1	146.6	50.36	39.2	128.4	60.80	41.2	147.7	58.85	40.8	144.1	48.09	40.5	118.8	38.86	52.2	74.0
February.....	64.54	43.8	147.5	50.33	39.3	128.0	60.82	41.1	147.9	59.20	41.2	143.8	48.19	40.6	118.7	36.59	48.8	75.0
March.....	62.83	42.8	146.7	50.68	39.5	128.4	60.84	41.0	148.3	58.24	40.5	143.7	49.04	40.7	120.4	37.95	50.3	75.0
April.....	64.29	42.1	152.8	51.29	39.8	128.7	60.97	41.1	148.4	56.47	39.6	142.7	49.37	40.8	120.9	37.50	49.4	75.0
May.....	64.90	42.1	154.3	51.46	39.7	129.6	61.48	41.3	149.0	59.34	40.6	146.2	50.28	41.3	121.8	38.07	49.0	77.0

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries¹—Con.

MANUFACTURING—Continued

Year and month	Chemicals and allied products—Con.			Products of petroleum and coal												Rubber products		
	Fertilizers			Total: Products of petroleum and coal			Petroleum refining			Coke and by-products			Roofing materials			Total: Rubber products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average	\$14.71	35.8	41.2	\$32.62	36.5	89.4	\$34.97	36.1	97.4							\$27.84	36.9	75.4
1941: January	14.89	34.8	42.9	32.46	36.6	88.7	34.46	35.7	97.0							30.38	39.0	77.9
1947: May	36.76	42.9	85.7	57.92	40.0	144.8	60.01	39.5	152.0	\$52.64	39.7	132.3	\$55.40	45.1	122.9	55.30	39.0	141.6
June	36.41	41.8	87.1	59.64	40.7	146.4	62.17	40.6	153.2	53.83	39.8	134.5	54.87	43.9	125.1	55.49	39.1	141.9
July	37.04	41.8	88.6	60.57	40.5	149.5	64.12	40.7	157.0	51.34	37.8	136.4	56.09	44.5	126.0	55.74	38.6	144.5
August	37.17	40.9	90.8	60.62	40.6	149.4	63.12	40.3	156.7	54.15	39.8	136.3	57.17	44.6	128.2	55.92	38.7	144.5
September	38.85	41.8	93.0	61.84	41.0	150.9	64.75	40.7	159.1	53.08	38.6	138.1	57.56	44.7	128.7	57.76	39.9	144.7
October	36.85	40.5	90.9	60.94	40.5	150.5	63.51	39.9	159.3	53.83	39.9	135.0	58.88	45.2	130.2	57.62	40.1	143.8
November	35.53	39.2	90.7	62.54	41.2	151.8	65.86	41.0	160.7	54.06	39.8	135.9	58.74	45.4	130.6	57.99	39.9	145.4
December	36.56	40.7	89.7	63.21	40.8	155.1	66.32	40.3	164.7	54.37	39.7	137.1	60.60	45.5	133.1	59.47	40.9	145.4
1948: January	37.23	41.5	89.7	64.47	40.7	158.6	67.54	39.8	169.9	*56.70	*40.4	*140.4	58.35	44.4	131.4	57.33	39.7	144.4
February	34.96	39.7	88.1	64.58	40.8	158.1	67.64	40.0	168.9	*57.06	*40.9	*139.5	58.67	44.1	133.2	54.70	38.5	142.1
March	36.25	41.6	87.1	64.62	40.6	159.3	67.77	40.1	169.2	56.74	40.3	140.8	59.51	44.3	134.2	53.24	37.8	140.8
April	36.49	41.5	88.0	64.15	40.1	160.1	68.02	39.9	170.3	53.59	38.3	139.9	58.84	44.0	133.8	53.44	37.8	141.3
May	36.96	40.9	90.4	66.85	41.0	163.2	70.85	40.6	174.1	57.14	40.0	142.4	60.55	44.9	135.4	55.72	38.8	143.5
RUBBER PRODUCTS—Continued																		
Rubber tires and inner tubes			Rubber boots and shoes			Rubber goods, other			Total: Miscellaneous industries			Instruments (professional and scientific), and fire-control equipment			Pianos, organs, and parts			
Cents			Cents			Cents			Cents			Cents			Cents			
1939: Average	\$33.36	35.0	95.7	\$22.80	37.5	60.7	\$23.34	38.9	60.5	\$24.48	39.2	62.4	35.33	45.7	77.3			
1941: January	36.67	37.7	97.5	26.76	41.9	63.9	24.97	39.4	63.9	25.35	39.3	64.5						
1947: May	61.12	37.6	162.2	48.27	40.7	118.5	48.81	40.6	120.1	46.50	40.3	115.3	51.81	38.9	131.3	\$52.92	41.4	128.5
June	61.35	37.7	161.5	49.62	41.4	119.8	48.95	40.5	120.9	47.00	40.3	116.7	54.15	39.5	135.1	52.71	41.3	127.7
July	62.06	37.9	164.0	48.46	40.5	118.7	48.22	39.1	123.2	46.37	39.4	117.8	53.55	40.1	135.0	51.67	40.8	126.9
August	62.15	37.8	164.0	47.23	39.9	118.3	49.17	39.7	123.7	46.32	39.3	117.7	54.27	39.9	135.3	50.88	40.7	125.9
September	64.75	38.9	166.1	49.92	41.8	119.4	50.40	40.9	123.4	47.91	40.2	119.1	55.00	39.8	136.1	53.81	41.9	129.5
October	63.78	38.7	164.7	51.28	42.4	121.1	51.03	41.4	123.2	48.74	40.6	120.0	55.67	39.9	137.5	52.64	40.8	130.1
November	64.86	38.9	166.1	49.26	40.6	121.3	51.27	41.0	125.2	49.14	40.7	120.7	56.06	40.0	136.9	54.24	41.6	131.8
December	65.74	39.5	165.8	54.72	44.5	123.1	52.93	41.8	126.1	50.21	41.2	121.9	57.99	40.8	139.1	56.25	42.9	132.6
1948: January	62.72	38.2	164.6	51.08	42.1	121.4	51.79	41.1	126.0	49.60	40.4	122.7	59.59	41.2	141.9	52.52	40.4	131.1
February	58.22	36.0	161.3	50.65	41.7	121.4	51.33	40.8	125.8	50.11	40.8	123.0	57.20	40.0	138.8	51.88	40.0	130.5
March	55.54	34.8	159.9	51.42	42.2	121.9	50.60	40.4	125.1	49.84	40.6	122.9	57.54	40.1	140.7	51.82	40.3	128.8
April	56.54	35.3	160.3	50.59	41.7	121.4	50.05	40.0	125.8	49.61	40.4	122.9	58.16	40.5	141.3	52.34	40.8	128.6
May	61.15	37.4	163.6	50.61	41.7	121.4	50.17	39.9	125.8	50.19	40.3	124.4	58.35	40.2	143.0	52.36	40.8	128.6
NONMANUFACTURING																		
Mining																		
Coal						Metal												
Anthracite			Bituminous ¹			Total: Metal			Iron			Copper			Lead and zinc			
Cents			Cents			Cents			Cents			Cents			Cents			
1939: Average	\$25.67	27.7	92.3	\$23.88	27.1	88.6	\$28.93	40.9	70.8	\$26.36	35.7	73.8	\$28.08	41.9	67.9	\$26.39	38.7	68.3
1941: January	25.13	27.0	92.5	26.00	29.7	88.5	30.63	41.0	74.7	29.26	39.0	75.0	30.93	41.8	74.9	28.61	38.2	74.9
1947: May	59.15	37.2	159.3	65.51	44.3	147.0	53.96	42.2	127.8	52.62	40.9	128.6	56.47	44.5	126.8	54.22	41.8	129.6
June	62.39	39.2	159.6	67.09	43.7	148.9	56.37	42.6	132.3	55.68	40.9	136.2	59.09	45.3	130.5	55.45	42.3	131.2
July	58.10	37.0	157.5	54.87	31.8	174.0	54.04	41.2	131.1	52.86	39.2	134.8	57.79	44.7	129.4	52.81	40.5	130.4
August	68.51	38.5	178.0	70.23	39.1	178.7	56.09	41.4	135.4	54.09	40.0	135.2	60.01	43.8	136.9	54.75	39.8	137.6
September	67.37	38.2	176.5	71.19	39.1	181.9	57.01	41.6	137.0	54.12	39.6	136.8	61.57	44.2	139.3	56.67	41.0	138.3
October	71.40	40.0	178.4	71.91	39.9	179.8	57.39	42.3	135.6	55.11	40.7	135.5	60.78	44.8	135.7	57.48	41.5	138.6
November	63.43	36.2	175.4	71.77	38.5	185.1	57.55	41.7	138.0	54.83	39.9	137.6	60.49	44.0	137.5	58.58	41.4	141.6
December	67.42	38.4	175.6	75.22	41.2	182.6	58.11	42.7	136.0	54.26	40.3	134.6	62.39	45.5	137.0	60.83	43.3	140.6
1948: January	68.79	39.0	176.4	75.78	40.9	184.7	58.23	42.5	137.1	54.99	40.5	135.6	62.21	45.2	137.7	59.88	42.0	142.5
February	65.78	36.2	181.7	70.54	38.7	182.6	58.79	42.9	137.0	56.40	41.4	136.1	62.84	45.8	137.3	59.16	41.9	141.2
March	71.59	40.3	177.6	74.84	40.6	184.2	57.90	42.4	136.6	56.04	41.3	135.7	61.25	44.7	137.1	59.04	41.6	141.5
April	55.05	32.1	170.8	49.33	26.9	182.3	57.69	42.1	137.2	55.11	40.5	136.0	61.04	44.6	136.9	59.58	41.5	143.2
May	69.89	39.4	177.4	74.09	40.3	184.1	58.98	42.6	138.5	57.91	41.9	137.3	61.25	44.8	138.1	59.79	41.1	144.4

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries ¹—Continued

Year and month	Mining—Continued						Public utilities											
	Quarrying and nonmetallic			Crude petroleum and natural gas production			Street railways and busses ²			Telephone ³			Telegraph ⁴			Electric light and power		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average.....	\$21.61	39.2	55.0	\$34.09	38.3	87.3	\$33.13	45.9	71.4	\$31.94	39.1	82.2				\$34.38	39.6	86.6
1941: January.....	22.06	38.2	57.6	33.99	37.7	88.5	33.63	45.3	73.1	32.52	39.7	82.4				35.49	39.4	90.0
1947: May.....	49.86	45.6	109.2	58.71	40.5	144.8	56.99	47.6	119.5	38.13	31.5	118.9	\$57.17	46.0	124.2	55.90	41.6	136.0
June.....	50.92	45.6	112.1	61.46	41.9	147.5	57.71	47.4	121.2	45.58	37.5	121.8	55.36	44.8	123.6	57.84	42.2	138.0
July.....	51.26	45.2	112.9	60.01	40.6	148.1	57.65	46.3	123.1	46.51	38.4	121.1	54.88	44.8	122.6	56.99	42.1	137.0
August.....	52.99	46.1	114.6	59.54	40.1	148.6	58.00	46.6	124.1	46.92	38.7	121.5	55.01	44.8	122.8	57.97	42.4	137.0
September.....	53.45	46.1	115.6	61.37	40.3	151.0	58.57	46.1	126.5	48.02	39.1	123.0	54.95	44.5	123.4	58.29	42.0	136.0
October.....	54.44	46.4	116.9	60.51	40.0	149.4	58.69	45.7	126.5	48.77	39.3	124.1	54.92	44.8	122.7	58.44	42.1	136.0
November.....	53.05	44.6	117.8	62.94	40.9	155.4	58.27	45.4	127.6	49.44	39.5	125.4	55.10	44.0	125.3	60.33	42.4	142.0
December.....	52.39	44.4	117.6	60.90	39.5	154.3	60.11	46.8	128.8	47.83	39.0	122.9	55.14	43.9	125.7	59.01	42.2	141.0
1948: January.....	50.12	42.7	117.5	64.53	39.9	162.7	60.73	46.3	129.9	48.20	38.9	124.1	55.81	44.4	125.7	59.87	42.4	142.0
February.....	49.92	42.1	118.6	65.77	40.4	163.8	62.15	47.7	129.5	47.82	38.7	123.8	56.26	44.5	126.5	59.60	42.2	142.0
March.....	52.81	43.6	121.2	63.44	39.7	160.5	61.36	47.3	129.5	47.31	38.7	122.3	56.19	44.4	126.7	58.27	41.6	140.0
April.....	54.60	44.5	122.5	64.49	40.1	161.4	60.10	46.6	129.3	48.39	38.8	124.2	59.45	44.1	134.9	59.10	41.8	142.0
May.....	57.01	45.2	126.0	66.74	40.4	166.2	60.32	46.5	130.0	49.59	39.4	125.5	62.12	45.0	138.1	59.77	41.7	144.0
Trade																		
	Wholesale			Retail														
				Total: Retail			Food			General merchandise			Apparel			Furniture and home furnishings		
			Cents			Cents			Cents			Cents			Cents			Cents
1939: Average.....	\$29.85	41.7	71.5	\$21.17	43.0	53.6	\$23.37	43.9	52.5	\$17.80	38.8	45.4	\$21.23	38.8	54.3	\$28.62	44.5	66.0
1941: January.....	30.59	40.6	73.6	21.53	42.9	54.9	23.78	43.6	53.7	18.22	38.8	46.6	21.89	39.0	56.0	27.96	43.9	68.0
1947: May.....	51.57	41.2	124.1	36.50	40.0	98.5	43.29	40.0	104.9	31.24	36.0	84.2	36.98	36.9	99.7	49.01	42.5	118.0
June.....	52.88	41.6	126.2	37.82	40.8	99.6	44.57	41.0	105.7	32.41	37.2	84.8	37.86	37.2	100.9	50.20	43.2	120.0
July.....	52.22	41.1	125.7	37.99	41.1	100.3	45.07	41.6	106.2	32.59	37.6	85.5	37.82	37.3	99.8	49.51	43.0	119.0
August.....	52.05	41.1	125.8	38.14	41.0	100.3	45.37	42.1	104.3	32.60	37.2	85.9	36.74	37.1	99.4	49.41	42.6	119.0
September.....	53.65	41.2	128.1	37.06	40.0	101.2	44.15	40.1	105.1	31.85	36.3	85.4	37.02	36.9	101.1	50.23	42.6	121.0
October.....	53.68	41.3	128.9	36.74	40.0	101.3	44.08	40.2	105.8	31.69	36.1	86.0	37.20	36.8	102.3	51.43	42.4	124.0
November.....	54.70	41.4	131.4	37.14	39.5	102.5	44.92	39.6	108.6	31.15	35.5	85.6	37.40	36.5	102.7	52.13	42.5	126.0
December.....	54.97	41.6	130.0	37.51	39.7	101.6	44.74	39.9	107.9	31.87	36.0	85.3	38.18	37.2	102.4	53.79	43.2	126.0
1948: January.....	54.36	41.0	130.9	37.62	39.8	104.4	45.46	39.9	110.8	32.09	35.9	88.9	37.68	36.9	100.7	50.62	42.3	125.0
February.....	55.87	41.1	134.3	38.33	40.0	105.0	46.33	39.7	111.9	32.09	35.7	88.3	37.94	37.3	100.2	53.05	43.9	125.0
March.....	55.17	40.9	133.4	38.89	39.8	104.4	46.14	39.5	112.3	32.28	35.3	87.8	37.50	36.2	102.5	51.30	43.7	124.0
April.....	55.76	41.0	134.6	39.27	39.8	105.5	46.28	39.2	112.6	32.51	35.3	89.5	38.23	36.6	103.0	51.97	43.5	126.0
May.....	56.13	41.2	136.3	39.84	39.9	106.4	46.51	39.2	113.1	33.03	35.2	90.7	38.54	36.5	104.0	53.27	43.4	128.0

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings in Manufacturing and Nonmanufacturing Industries¹—Con.

NONMANUFACTURING—Continued

Year and month	Trade—Continued						Finance †		Service								
	Retail—Continued						Broker- age	Insur- ance	Hotels * (year-round)			Power laundries			Cleaning and dyeing		
	Automotive			Lumber and build- ing materials													
	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings
			Cents			Cents					Cents			Cents			Cents
10: Average.....	\$27.07	47.6	57.1	\$26.22	42.7	61.9	\$36.63	\$36.32	\$15.25	46.6	32.4	\$17.69	42.7	41.7	\$19.96	41.8	49.0
11: January.....	28.26	46.8	60.6	26.16	41.7	63.4	38.25	37.52	15.65	45.9	33.8	18.37	42.9	42.9	19.92	41.9	48.8
12: May.....	50.54	45.6	112.4	46.32	42.9	109.0	61.06	52.35	29.23	45.0	64.3	32.45	42.7	75.6	37.70	42.6	89.4
June.....	52.25	46.0	114.1	47.43	43.3	110.4	63.72	53.75	29.85	45.2	65.0	33.21	42.8	76.7	38.10	42.9	89.8
July.....	50.59	45.4	114.6	46.46	42.5	110.5	62.11	52.60	29.36	44.9	65.2	32.95	42.6	76.9	37.34	42.1	89.9
August.....	51.50	45.5	115.2	48.49	43.0	112.2	58.42	52.55	29.50	45.0	66.0	32.79	42.2	77.1	35.86	40.8	89.2
September.....	51.55	45.3	115.9	48.24	42.3	113.5	59.32	51.47	29.86	44.1	67.2	33.44	42.4	78.6	37.67	41.9	91.1
October.....	52.37	45.7	116.5	48.70	42.9	113.6	61.38	51.96	30.45	44.0	68.4	32.97	42.3	78.7	37.70	41.5	91.9
November.....	52.62	45.3	117.4	47.65	42.1	113.9	64.51	53.98	30.54	44.4	68.7	32.86	41.7	78.6	37.23	40.9	92.5
December.....	52.71	45.5	116.8	49.03	42.7	114.3	62.85	53.92	30.89	44.1	69.3	33.88	42.6	79.7	37.70	41.5	92.1
1: January.....	51.66	44.4	117.9	48.19	41.8	115.4	62.35	55.09	30.55	43.9	69.5	33.99	42.3	80.7	37.64	41.4	92.4
February.....	53.03	45.0	118.6	49.56	42.1	117.4	63.37	56.63	31.19	44.6	69.5	33.54	41.9	80.2	36.55	40.5	92.3
March.....	52.98	44.6	120.2	49.24	42.5	117.0	62.60	55.51	30.96	44.0	69.5	33.74	42.0	80.5	37.96	41.5	92.4
April.....	54.53	44.7	122.4	49.64	42.6	117.5	65.76	54.94	31.59	44.2	69.9	34.29	42.3	81.3	39.18	42.1	93.3
May.....	54.75	44.7	123.0	50.32	42.8	119.3	70.11	56.43	31.70	44.0	71.0	34.22	41.9	81.6	39.13	42.0	93.6

These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during part of the pay period ending nearest the 15th of the month. As not all reporting firms supply man-hour data, the average weekly hours and average hourly earnings for individual industries are based on a slightly smaller sample than are average weekly earnings.

For manufacturing, mining, power laundries, and cleaning and dyeing industries, the data relate to production and related workers only. For the remaining industries, unless otherwise noted, the data relate to all non-supervisory employees and working supervisors. The size of the reporting sample, methods of computation, and additional tables on "real" and "net" weekly earnings are contained in the Bureau's monthly mimeographed release, "Hours and Earnings—Industry Report," which is available upon request. Data for 1939 and January 1941, for some industries, are strictly comparable with the periods currently presented. The entire series, by month, is available upon request to the Bureau of Labor Statistics. Data for the two current months are subject to revision without notation. Revised data for earlier months are identified by an asterisk.

New series beginning with month and year shown below; not comparable with data shown for earlier periods:

Knitted cloth.—September 1947; comparable August data are 101.2 cents.
Jute goods, except felts.—September 1947; comparable August data are 89.1 cents.

Underwear and neckwear, men's.—August 1947; comparable July data are \$32.42, 35.1 hours, and 92.3 cents.

Textile bags.—June 1947; comparable May data are \$33.53.

¹ April 1948 data reflect work stoppages.

² Data include private and municipal street-railway companies and affiliated, subsidiary, or successor trolley-bus and motor-bus companies.

³ Prior to April 1945 the averages of hours and earnings related to all employees except executives; beginning with April 1945 these averages reflect mainly the hours and earnings of employees subject to the Fair Labor Standards Act. At the same time the reporting sample was expanded to include a greater number of employees of "long lines." The April 1945 data are \$40.72, 42.9 hours, and 95.2 cents on the old basis, and \$37.50, 40.6 hours, and 92.6 cents on the new basis. Data for May 1947 reflect work stoppages.

⁴ Data relate to all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters personnel, trainees in school, and messengers.

⁵ Data on average weekly hours and average hourly earnings are not available.

⁶ Money payments only; additional value of board, room, uniforms, and tips, not included.

⁷ Revised.

TABLE C-2: Estimated Average Hourly Earnings, Gross and Exclusive of Overtime, of Production Workers in Manufacturing Industries¹

[In cents]

Year and month	All manufacturing		Durable goods		Nondurable goods		Year and month	All manufacturing		Durable goods		Nondurable goods	
	Gross	Exclud- ing over- time	Gross	Exclud- ing over- time	Gross	Exclud- ing over- time		Gross	Exclud- ing over- time	Gross	Exclud- ing over- time	Gross	Exclud- ing over- time
January 1941.....	68.3	66.4	74.9	72.2	61.0	60.1	1947: May.....	120.7	117.0	127.8	123.8	113.0	109.8
January 1945.....	104.6	97.0	114.4	105.3	89.1	84.0	June.....	122.6	118.7	130.3	126.1	114.0	110.1
July 1945.....	103.3	96.9	112.7	105.2	90.2	85.4	July.....	123.0	119.5	130.5	127.0	115.0	111.1
June 1946.....	108.4	105.3	116.5	113.4	100.3	97.2	August.....	123.6	120.1	131.2	127.5	115.8	112.2
1941: Average.....	72.9	70.2	80.8	77.0	64.0	62.5	September.....	124.9	120.9	133.1	128.9	116.5	112.2
1942: Average.....	85.3	80.5	94.7	88.1	72.3	69.8	October.....	125.8	121.6	133.7	129.2	117.5	113.3
1943: Average.....	96.1	89.4	105.9	97.6	80.3	76.3	November.....	126.8	122.7	134.6	130.2	118.5	114.1
1944: Average.....	101.9	94.7	111.7	102.9	86.1	81.4	December.....	127.8	122.8	135.4	129.9	119.6	115.1
1945: Average.....	102.3	96.3	111.1	104.2	90.4	85.8	1948: January.....	128.5	124.3	135.5	130.8	121.0	117.1
1946: Average.....	108.4	104.9	115.6	112.2	101.2	97.8	February.....	128.7	124.7	135.2	130.9	121.7	118.1
1947: Average.....	122.1	118.2	129.2	125.0	114.5	110.9	March.....	128.9	124.8	135.2	130.6	122.0	118.1
							April ²	129.2	125.3	135.7	131.5	121.9	118.1
							May ³	130.1	126.3	136.5	132.4	123.1	119.1

¹ Overtime is defined as work in excess of 40 hours a week and paid for at time and one-half. The method of estimating average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on holidays. Data for the months of January, July, September, and November therefore, may not be precisely comparable with data for the other months in which important holidays are seldom included in the reporting pay period.

This characteristic of the data does not appear to invalidate the comparability of the figure for January 1941 with those for the following months.

² Eleven-month average only; August 1945 excluded because of V-J-day holiday period.

³ Preliminary.

TABLE C-3: Average Earnings and Hours on Private Construction Projects, by Type of Firm¹

Year and month	All types, private construction projects			Building construction														
				Total building						General contractors								
				Average wkly. earnings ²	Average wkly. hours	Average hourly earnings	Average wkly. earnings ²	Average wkly. hours	Average hourly earnings	Average wkly. earnings ²	Average wkly. hours	Average hourly earnings	Average wkly. earnings ²	Average wkly. hours	Average hourly earnings	Average wkly. earnings ²	Average wkly. hours	Average hourly earnings
1940: Average.....	(0)	(0)	(0)	\$31.70	33.1	\$0.958	\$30.56	33.3	\$0.918	\$33.11	32.7	\$1.012	\$32.87	34.6	\$0.949	\$33.05	32.5	\$1.018
1941: January.....	(0)	(0)	(0)	32.18	32.6	.986	30.10	32.7	.946	33.42	32.6	1.025	34.16	35.8	.955	31.49	29.7	1.002
1947: May.....	\$61.87	38.0	\$1.627	62.26	37.6	1.655	57.95	36.8	1.575	67.15	38.5	1.742	68.24	38.7	1.761	63.77	37.3	1.710
June.....	62.25	38.2	1.631	62.71	37.8	1.661	58.55	36.9	1.585	67.69	38.7	1.749	67.73	38.9	1.739	63.52	37.4	1.697
July.....	63.26	38.4	1.648	63.00	38.0	1.676	60.08	37.6	1.596	67.99	38.4	1.772	68.63	38.7	1.774	63.52	36.9	1.722
August.....	64.36	38.6	1.668	64.71	38.2	1.694	61.33	38.0	1.614	69.01	38.5	1.794	69.60	38.9	1.791	66.32	37.4	1.774
September.....	65.09	38.3	1.697	65.36	37.9	1.723	61.16	37.2	1.646	70.61	38.9	1.816	71.19	39.1	1.819	66.13	37.4	1.783
October.....	66.03	38.5	1.716	66.36	38.1	1.743	62.25	37.4	1.665	71.32	38.9	1.833	71.98	39.2	1.836	67.29	37.6	1.780
November.....	64.02	36.9	1.736	64.55	36.6	1.765	60.55	35.8	1.690	69.36	37.5	1.851	71.90	38.4	1.872	63.56	35.0	1.818
December.....	66.47	38.0	1.748	67.31	37.9	1.774	62.86	37.1	1.695	72.64	38.9	1.865	76.61	40.6	1.887	65.33	36.0	1.823
1948: January.....	65.73	37.3	1.762	66.28	37.2	1.781	62.05	36.4	1.707	71.43	38.2	1.868	75.79	40.7	1.862	65.79	35.7	1.840
February.....	66.17	37.0	1.788	66.31	36.7	1.806	62.70	36.3	1.727	70.99	37.3	1.899	74.17	39.1	1.895	65.03	34.7	1.872
March.....	66.73	37.4	1.786	66.89	37.1	1.805	63.28	36.7	1.724	71.47	37.5	1.905	74.01	39.0	1.897	66.80	35.7	1.870
April ²	67.25	37.5	1.795	67.31	37.0	1.818	63.62	36.5	1.745	72.08	37.7	1.909	74.64	38.9	1.919	68.29	36.3	1.880
May ³	67.98	37.6	1.810	68.15	37.2	1.833	64.82	36.6	1.773	72.62	38.0	1.913	75.67	39.1	1.936	69.78	36.6	1.906

See footnotes at end of table.

TABLE C-3: Average Earnings and Hours on Private Construction Projects, by Type of Firm¹—Con.

Building construction—Continued

Special building trades—Continued

Year and month	Electrical work			Masonry			Plastering and lathing			Carpentry			Roofing and sheet metal			Excavation and foundation		
	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings
40: Average.....	\$41.18	34.5	\$1.196	\$29.47	29.8	\$0.988	\$36.60	28.5	\$1.286	\$31.23	33.0	\$0.947	\$28.07	31.8	\$0.883	\$26.53	30.9	\$0.859
41: January.....	43.18	36.5	1.184	25.66	25.3	1.012	35.36	27.5	1.287	30.40	31.2	.974	27.60	30.3	.910	23.86	29.1	.820
47: May.....	76.73	40.4	1.899	62.01	37.2	1.668	74.95	38.9	1.926	62.67	38.9	1.612	57.43	37.2	1.542	59.70	38.5	1.552
June.....	77.81	40.6	1.917	63.54	37.2	1.706	73.67	38.2	1.927	62.29	38.3	1.625	58.13	37.6	1.547	60.48	37.9	1.594
July.....	77.17	39.7	1.946	63.26	37.3	1.697	73.14	37.5	1.950	61.97	37.7	1.645	59.58	37.2	1.602	60.33	38.1	1.583
August.....	76.96	39.3	1.960	65.89	38.2	1.727	75.61	38.0	1.992	65.99	39.5	1.670	60.86	37.4	1.629	63.12	39.1	1.616
September.....	79.92	40.3	1.985	66.68	38.1	1.752	76.05	38.1	1.995	65.75	39.0	1.684	63.27	37.9	1.669	64.27	39.8	1.613
October.....	81.87	40.8	2.006	67.19	37.7	1.781	75.60	37.4	2.019	66.55	38.9	1.710	62.48	38.4	1.626	63.51	38.8	1.638
November.....	79.64	39.9	1.995	65.39	36.0	1.817	73.27	35.3	2.075	66.50	38.4	1.733	57.76	35.4	1.631	60.08	36.7	1.636
December.....	81.20	40.6	2.000	66.69	36.3	1.836	76.63	36.5	2.100	64.94	37.8	1.718	60.64	37.1	1.634	63.33	37.8	1.676
48: January.....	81.62	40.6	2.012	61.51	33.0	1.862	75.84	36.7	2.009	63.04	36.5	1.750	56.54	34.5	1.638	63.79	37.7	1.600
February.....	82.10	40.0	2.052	59.50	31.6	1.881	74.81	35.9	2.087	61.60	35.2	1.752	55.38	33.7	1.643	64.37	37.3	1.725
March.....	83.75	40.6	2.064	61.38	32.6	1.883	75.10	36.0	2.087	62.93	35.4	1.778	55.86	34.4	1.622	61.57	36.4	1.689
April ³	81.76	39.7	2.061	64.61	34.3	1.885	76.61	36.6	2.094	68.41	38.0	1.799	58.33	35.3	1.652	63.40	37.9	1.672
May ⁴	81.50	39.7	2.052	66.05	35.5	1.859	78.45	37.0	2.117	69.34	38.7	1.790	59.97	35.9	1.672	65.18	38.8	1.681

Nonbuilding construction

Year and month	Total nonbuilding			Highway and street			Heavy construction			Other		
	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings ²	Avg. wkly. hours	Avg. hourly earnings
40: Average.....	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
41: January.....	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
47: May.....	\$60.22	39.7	\$1.515	\$54.23	38.6	\$1.404	\$62.83	40.0	\$1.571	\$58.60	40.2	\$1.459
June.....	60.17	40.0	1.504	56.92	40.4	1.408	61.34	39.6	1.548	60.09	40.8	1.474
July.....	61.76	40.3	1.533	58.18	40.6	1.434	64.09	40.1	1.597	58.49	40.5	1.445
August.....	62.82	40.2	1.562	58.57	40.1	1.459	65.53	40.2	1.632	58.92	40.5	1.454
September.....	63.85	40.2	1.587	59.68	39.9	1.495	66.84	40.1	1.666	58.26	40.9	1.425
October.....	64.53	40.3	1.602	60.66	40.2	1.510	67.11	40.0	1.676	60.08	41.1	1.461
November.....	61.67	38.2	1.615	57.55	37.7	1.528	64.03	38.1	1.680	58.50	38.9	1.502
December.....	62.83	38.4	1.638	60.21	38.4	1.570	65.24	38.4	1.697	58.35	38.2	1.528
48: January.....	63.28	37.8	1.676	61.25	37.9	1.618	65.57	37.6	1.745	58.14	38.1	1.524
February.....	65.42	38.5	1.700	60.96	37.4	1.629	68.78	38.6	1.781	61.24	39.0	1.570
March.....	65.85	38.9	1.692	60.71	37.7	1.609	68.79	39.3	1.750	62.80	38.9	1.615
April ³	66.92	39.6	1.691	61.63	38.5	1.601	69.53	39.9	1.743	65.08	39.8	1.637
May ⁴	66.68	39.1	1.707	63.12	38.8	1.627	69.34	39.3	1.763	63.54	38.7	1.641

¹ Covers all contract construction firms reporting to the Bureau during the months shown (over 11,000), but not necessarily identical establishments. The data include all employees of these construction firms working at the site of privately financed projects (skilled, semiskilled, unskilled, superintendents, time clerks, etc.). Employees of these firms engaged on publicly financed projects and off-site work are excluded.

² Includes types not shown separately.

³ Hourly earnings, when multiplied by weekly hours of work, may not exactly equal weekly earnings because of rounding.

⁴ Not available prior to February 1946.

⁵ Includes general contracting as well as general building maintenance, and other special building data.

⁶ Revised.

⁷ Preliminary.

D: Prices and Cost of Living

TABLE D-1: Consumers' Price Index ¹ for Moderate-Income Families in Large Cities, by Group of Commodities

[1935-39=100]

Year and month	All items	Food	Apparel	Rent	Fuel, electricity, and ice			Housefurnishings	Miscellaneous
					Total	Gas and electricity	Other fuels and ice		
1913: Average.....	70.7	70.9	69.3	92.2	61.9	(*)	(*)	59.1	
1914: July.....	71.7	81.7	69.8	92.2	62.3	(*)	(*)	60.8	
1918: December.....	118.0	149.6	147.9	97.1	90.4	(*)	(*)	121.2	
1920: June.....	149.4	185.0	209.7	119.1	104.8	(*)	(*)	169.7	
1929: Average.....	122.5	132.5	115.3	141.4	112.5	(*)	(*)	111.7	
1932: Average.....	97.6	86.5	90.8	116.9	103.4	(*)	(*)	85.4	
1939: Average.....	99.4	95.2	100.5	104.3	99.0	98.9	99.3	101.3	
August 15.....	98.6	93.5	100.3	104.3	97.5	99.0	96.3	100.6	
1940: Average.....	100.2	96.6	101.7	104.6	99.7	98.0	101.6	100.5	
1941: Average.....	105.2	105.5	106.3	106.2	102.2	97.1	107.4	107.3	
January 1.....	100.8	97.6	101.2	105.0	100.8	97.5	104.0	100.2	
December 15.....	110.5	113.1	114.8	108.2	104.1	96.7	111.3	116.8	
1942: Average.....	116.5	123.9	124.2	108.5	105.4	96.7	113.9	122.2	
1943: Average.....	123.6	138.0	129.7	108.0	107.7	96.1	119.0	125.6	
1944: Average.....	125.5	136.1	138.8	108.2	109.8	95.8	123.4	136.4	
1945: Average.....	128.4	139.1	145.9	108.3	110.3	95.0	125.1	145.8	
August 15.....	129.3	140.9	146.4	(*)	111.4	95.2	127.2	146.0	
1946: Average.....	130.3	159.6	160.2	108.6	112.4	92.4	132.0	159.2	
June 15.....	133.3	145.6	157.2	108.5	110.5	92.1	128.4	156.1	
November 15.....	152.2	187.7	171.0	(*)	114.8	91.8	137.2	171.0	
1947: Average.....	159.2	193.8	185.8	111.2	121.1	92.0	149.5	184.4	
June 15.....	157.1	190.5	185.7	109.2	117.7	91.7	143.0	182.6	
July 15.....	158.4	193.1	184.7	110.0	119.5	91.7	146.6	184.3	
August 15.....	160.3	196.5	185.9	111.2	123.8	92.0	154.8	184.2	
September 15.....	163.8	203.5	187.6	113.6	124.6	92.1	156.3	187.5	
October 15.....	163.8	201.6	189.0	114.9	125.2	92.2	157.4	187.8	
November 15.....	164.9	202.7	190.2	115.2	126.9	92.5	160.5	188.9	
December 15.....	167.0	206.9	191.2	115.4	127.8	92.6	162.0	191.4	
1948: January 15.....	168.8	209.7	192.1	115.9	129.5	93.1	165.0	192.3	
February 15.....	167.5	204.7	195.1	116.0	130.0	93.2	165.9	193.0	
March 15.....	166.9	202.3	196.3	116.3	130.3	93.8	166.0	194.9	
April 15.....	169.3	207.9	196.4	116.3	130.7	93.9	166.7	194.7	
May 15.....	170.5	210.9	197.5	116.7	131.8	94.1	168.6	193.6	
June 15.....	171.7	214.1	196.9	117.0	132.6	94.2	170.1	194.8	

¹ The "consumers' price index for moderate-income families in large cities," formerly known as the "cost of living index" measures average changes in retail prices of selected goods, rents, and services weighted by quantities bought in 1934-36 by families of wage earners and moderate-income workers in large cities whose incomes averaged \$1,524 in 1934-36.

Bureau of Labor Statistics Bulletin 699, Changes in Cost of Living in Large Cities in the United States, 1913-41, contains a detailed description of methods used in constructing this index. Additional information on the consumers' price index is given in a compilation of reports published by the Office of Economic Stabilization, Report of the President's Committee on the Cost of Living.

Mimeographed tables are available upon request showing indexes for each of the cities regularly surveyed by the Bureau and for each of the major groups of living essentials. Indexes for all large cities combined are available since 1913. The beginning date for series of indexes for individual cities varies from city to city but indexes are available for most of the 34 cities since World War I.

* Data not available.

* Rents not surveyed this month.

TABLE D-2: Consumers' Price Index for Moderate-Income Families, by City,¹ for Selected Periods

[1935-39=100]

City	June 15, 1948	May 15, 1948	Apr. 15, 1948	Mar. 15, 1948	Feb. 15, 1948	Jan. 15, 1948	Dec. 15, 1947	Nov. 15, 1947	Oct. 15, 1947	Sept. 15, 1947	Aug. 15, 1947	July 15, 1947	June 15, 1947	June 15, 1946	Aug. 15, 1939
Average	171.7	170.5	169.3	166.9	167.5	168.8	167.0	164.9	163.8	163.8	160.3	158.4	157.1	133.3	98.6
Atlanta, Ga.	(2)	170.8	(2)	(2)	169.2	(2)	(2)	167.5	(2)	(2)	162.2	(2)	159.1	133.8	98.0
Baltimore, Md.	176.1	(2)	(2)	170.9	(2)	(2)	171.3	(2)	(2)	167.8	(2)	(2)	160.5	135.6	98.7
Birmingham, Ala.	174.7	173.7	172.7	172.0	172.8	174.4	173.8	171.6	169.7	169.1	166.6	164.1	162.1	136.5	98.5
Boston, Mass.	166.1	164.1	163.6	160.8	161.3	163.1	160.4	158.3	157.5	158.6	154.5	151.9	150.3	127.9	97.1
Buffalo, N. Y.	(2)	(2)	167.2	(2)	(2)	167.4	(2)	(2)	162.6	(2)	(2)	159.1	157.7	132.6	98.5
Chicago, Ill.	176.2	174.9	172.1	169.0	168.8	171.5	170.1	168.3	167.3	168.3	162.7	160.1	158.3	130.9	98.7
Cincinnati, Ohio	173.5	172.3	170.8	169.3	170.1	171.2	170.3	167.1	167.1	166.3	162.2	160.4	158.5	132.2	97.3
Cleveland, Ohio	(2)	173.7	(2)	(2)	171.6	(2)	(2)	166.9	(2)	(2)	163.0	(2)	160.3	135.7	100.0
Denver, Colo.	(2)	(2)	168.5	(2)	(2)	167.0	(2)	(2)	160.4	(2)	(2)	155.7	155.9	131.7	98.6
Detroit, Mich.	174.5	173.2	171.8	168.7	169.0	170.6	169.0	166.6	166.7	164.2	162.8	160.2	158.7	136.4	98.5
Houston, Tex.	172.5	171.5	171.4	170.0	170.4	170.8	169.3	165.8	163.4	162.1	159.7	158.4	157.6	130.5	100.7
Indianapolis, Ind.	(2)	(2)	172.5	(2)	(2)	172.3	(2)	(2)	167.8	(2)	(2)	159.5	158.0	131.9	98.0
Jacksonville, Fla.	178.3	(2)	(2)	172.8	(2)	(2)	173.9	(2)	(2)	168.5	(2)	(2)	163.5	138.4	98.5
Kansas City, Mo.	(2)	(2)	163.3	(2)	(2)	162.4	(2)	(2)	157.9	(2)	(2)	150.5	149.5	129.4	98.6
Los Angeles, Calif.	168.8	169.1	169.3	167.4	168.1	167.6	166.0	164.1	161.3	161.6	157.8	157.2	156.3	136.1	100.5
Manchester, N. H.	(2)	(2)	172.0	(2)	(2)	172.5	(2)	(2)	166.1	(2)	(2)	162.1	160.4	134.7	97.8
Memphis, Tenn.	174.7	(2)	(2)	172.4	(2)	(2)	173.5	(2)	(2)	169.0	(2)	(2)	160.6	134.5	97.8
Milwaukee, Wis.	(2)	171.1	(2)	(2)	166.9	(2)	(2)	164.0	(2)	(2)	159.0	(2)	156.6	131.2	97.0
Minneapolis, Minn.	171.4	(2)	(2)	167.7	(2)	(2)	166.2	(2)	(2)	162.1	(2)	(2)	152.9	129.4	99.7
Mobile, Ala.	173.5	(2)	(2)	169.9	(2)	(2)	170.3	(2)	(2)	164.3	(2)	(2)	159.3	132.9	98.6
New Orleans, La.	(2)	176.5	(2)	(2)	177.1	(2)	(2)	173.2	(2)	(2)	168.5	(2)	164.6	138.0	99.7
New York, N. Y.	169.1	167.5	167.0	164.3	166.4	167.1	164.9	163.3	161.7	161.9	158.6	157.5	156.9	135.8	99.0
Norfolk, Va.	(2)	171.9	(2)	(2)	170.1	(2)	(2)	168.2	(2)	(2)	163.6	(2)	160.9	135.2	97.8
Philadelphia, Pa.	172.1	170.4	169.3	165.5	166.6	168.4	166.3	164.2	162.2	163.2	159.5	158.3	157.1	132.5	97.8
Pittsburgh, Pa.	175.7	173.5	171.9	170.1	170.1	172.3	170.2	168.1	167.8	168.2	164.9	162.6	161.1	134.7	98.4
Portland, Maine	167.4	(2)	(2)	162.7	(2)	(2)	162.0	(2)	(2)	159.2	(2)	(2)	153.3	128.7	97.1
Portland, Oreg.	(2)	(2)	175.8	(2)	(2)	174.4	(2)	(2)	166.5	(2)	(2)	162.1	161.5	140.3	100.1
Richmond, Va.	(2)	(2)	163.4	(2)	(2)	165.1	(2)	(2)	161.7	(2)	(2)	153.8	152.6	128.2	98.0
St. Louis, Mo.	172.1	(2)	(2)	167.8	(2)	(2)	167.9	(2)	(2)	165.4	(2)	(2)	155.6	131.2	98.1
San Francisco, Calif.	174.2	(2)	(2)	171.4	(2)	(2)	168.9	(2)	(2)	165.7	(2)	(2)	159.3	137.8	99.3
Savannah, Ga.	(2)	(2)	177.6	(2)	(2)	175.6	(2)	(2)	171.5	(2)	(2)	165.9	165.8	140.6	99.3
Scranton, Pa.	(2)	170.2	(2)	(2)	166.5	(2)	(2)	165.2	(2)	(2)	162.8	(2)	159.9	132.2	96.0
Seattle, Wash.	(2)	174.3	(2)	(2)	170.7	(2)	(2)	166.2	(2)	(2)	161.8	(2)	158.3	137.0	100.3
Washington, D. C.	(2)	166.7	(2)	(2)	163.2	(2)	(2)	161.7	(2)	(2)	159.1	(2)	156.0	133.8	98.6

¹The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

²Through June 1947, consumers' price indexes were computed monthly for

21 cities and in March, June, September, and December for 13 additional cities; beginning July 1947 indexes were computed monthly for 10 cities and once every 3 months for 24 additional cities according to a staggered schedule.

TABLE D-3: Consumers' Price Index for Moderate-Income Families, by City and Group of Commodities

[1935-39=100]

City	Food		Apparel		Rent		Fuel, electricity and ice						House-furnishings		Miscellaneous	
							Total		Gas and electricity		Other fuels and ice					
	June 15, 1948	May 15, 1948	June 15, 1948	May 15, 1948	June 15, 1948	May 15, 1948	June 15, 1948	May 15, 1948	June 15, 1948	May 15, 1948	June 15, 1948	May 15, 1948	June 15, 1948	May 15, 1948	June 15, 1948	May 15, 1948
Average.....	214.1	210.9	196.9	197.5	117.0	116.7	132.6	131.8	94.2	94.1	170.1	168.6	194.8	193.6	147.5	147.2
Atlanta, Ga.....	209.9	207.9	(1)	200.4	(2)	117.5	144.3	144.3	77.0	76.9	206.1	206.2	(1)	191.4	(1)	151.1
Baltimore, Md.....	225.3	221.6	198.5	(1)	114.5	(2)	142.3	139.6	121.7	121.1	158.9	154.6	200.1	(1)	145.5	(1)
Birmingham, Ala.....	212.7	209.6	205.3	204.5	(2)	137.5	131.8	131.8	79.6	79.6	170.7	170.7	190.9	191.1	142.9	142.9
Boston, Mass.....	204.1	199.2	188.5	189.2	112.6	(2)	148.7	148.1	111.7	111.6	168.4	167.5	184.8	182.8	142.6	142.6
Buffalo, N. Y.....	211.6	207.9	(1)	(1)	(2)	(2)	132.6	130.7	96.0	96.0	165.2	161.5	(1)	(1)	(1)	(1)
Chicago, Ill.....	221.3	218.4	199.2	199.2	131.5	(2)	126.1	125.7	83.5	83.5	170.5	169.5	179.8	178.8	147.0	146.9
Cincinnati, Ohio.....	216.3	213.5	192.7	193.1	112.1	(2)	137.4	137.6	95.1	95.1	177.8	178.1	190.6	189.8	149.4	149.4
Cleveland, Ohio.....	223.7	218.0	(1)	195.8	(2)	123.9	139.5	139.3	105.6	105.6	171.9	171.5	(1)	180.6	(1)	147.1
Denver, Colo.....	216.5	213.3	(1)	(1)	(2)	(2)	106.7	106.7	69.2	69.2	149.6	149.6	(1)	(1)	(1)	(1)
Detroit, Mich.....	211.3	208.0	145.2	195.0	(2)	(2)	143.3	141.8	83.9	83.9	188.4	185.7	204.4	203.4	162.2	162.2
Houston, Tex.....	220.0	218.1	208.8	208.9	(2)	119.5	94.3	94.3	81.8	81.8	128.0	128.0	198.8	195.4	149.7	149.7
Indianapolis, Ind.....	211.5	208.0	(1)	(1)	(2)	(2)	148.5	148.5	86.6	86.6	184.9	185.0	(1)	(1)	(1)	(1)
Jacksonville, Fla.....	222.9	217.3	193.9	(1)	124.3	(2)	145.2	142.5	100.2	100.2	184.2	179.1	184.8	(1)	156.7	(1)
Kansas City, Mo.....	204.4	202.2	(1)	(1)	(2)	(2)	120.7	120.7	66.5	66.5	170.3	170.3	(1)	(1)	(1)	(1)
Los Angeles, Calif.....	212.1	212.6	196.2	195.8	(2)	120.9	94.3	94.3	89.3	89.3	118.0	118.0	185.5	187.5	146.3	146.3
Manchester, N. H.....	213.0	208.9	(1)	(1)	(2)	(2)	152.2	150.9	94.6	94.6	180.9	179.1	(1)	(1)	(1)	(1)
Memphis, Tenn.....	226.7	223.2	209.0	(1)	126.8	(2)	128.1	128.0	77.0	77.0	156.4	156.2	180.4	(1)	137.2	(1)
Milwaukee, Wis.....	215.3	213.7	(1)	200.0	(2)	116.0	141.7	139.4	104.5	101.6	167.3	165.4	(1)	194.0	(1)	144.1
Minneapolis, Minn.....	206.2	206.0	204.5	(1)	125.9	(2)	139.2	135.3	78.5	78.5	178.6	172.2	190.7	(1)	152.4	(1)
Mobile, Ala.....	219.8	217.0	202.2	(1)	124.0	(2)	127.3	128.6	84.0	84.0	161.0	163.3	173.4	(1)	138.2	(1)
New Orleans, La.....	227.3	223.0	(1)	205.5	(2)	111.2	112.9	112.8	75.1	75.1	153.1	152.9	(1)	188.2	(1)	142.1
New York, N. Y.....	213.9	210.0	195.9	195.9	(2)	(2)	130.0	129.0	100.5	99.9	175.4	173.7	183.1	182.7	146.7	146.7
Norfolk, Va.....	214.4	213.3	(1)	194.4	(2)	114.1	145.5	143.3	97.8	97.8	183.1	179.1	(1)	189.7	(1)	147.1
Philadelphia, Pa.....	209.4	205.0	193.2	193.8	(2)	118.1	136.1	135.1	103.0	103.0	161.4	159.7	197.1	196.7	147.4	147.4
Pittsburgh, Pa.....	219.6	213.7	224.0	222.4	(2)	(2)	134.4	134.4	103.4	103.3	187.8	187.8	200.0	200.9	143.8	143.8
Portland, Maine.....	204.1	199.4	197.2	(1)	111.7	(2)	144.6	143.6	100.5	100.5	166.2	164.6	189.7	(1)	147.4	(1)
Portland, Oreg.....	228.2	229.5	(1)	(1)	(2)	(2)	127.0	126.7	95.5	95.5	165.8	165.0	(1)	(1)	(1)	(1)
Richmond, Va.....	205.3	203.4	(1)	(1)	(2)	(2)	138.2	137.7	95.6	95.6	164.1	163.4	(1)	(1)	(1)	(1)
St. Louis, Mo.....	222.0	218.2	196.8	(1)	116.3	(2)	134.9	133.5	94.1	94.1	171.0	168.3	171.0	(1)	140.8	(1)
San Francisco, Calif.....	221.6	223.4	190.8	(1)	114.5	(2)	83.1	82.8	72.7	72.7	126.9	120.5	161.4	(1)	158.7	(1)
Savannah, Ga.....	224.5	223.3	(1)	(1)	(2)	(2)	151.4	147.1	91.2	91.2	186.3	179.6	(1)	(1)	(1)	(1)
Scranton, Pa.....	216.1	212.2	(1)	202.1	(2)	106.7	136.1	134.5	91.8	91.8	163.2	160.6	(1)	180.8	(1)	136.1
Seattle, Wash.....	220.3	221.4	(1)	191.8	(2)	121.3	122.9	122.1	91.5	91.5	149.1	147.6	(1)	189.9	(1)	152.1
Washington, D. C.....	215.4	209.7	(1)	220.1	(2)	103.0	131.2	130.9	94.4	94.4	155.7	155.1	(1)	204.5	(1)	149.1

¹ Prices of apparel, housefurnishings, and miscellaneous goods and services are obtained monthly in 10 cities and once every 3 months in 24 additional cities according to a staggered schedule.

² Rents are surveyed every 3 months in 34 large cities according to a staggered schedule.

TABLE D-4: Indexes of Retail Prices of Foods,¹ by Group, for Selected Periods

[1935-39=100]

Year and month	All foods	Cereals and bakery products	Meats, poultry, and fish	Meats				Chicken	Fish	Dairy products	Eggs	Fruits and vegetables				Beverages	Fats and oils	Sugar and sweets
				Total	Beef and veal	Pork	Lamb					Total	Fresh	Canned	Dried			
1923: Average	124.0	105.5	101.2							129.4	136.1	160.5	173.6	124.8	175.4	131.5	126.2	175.4
1926: Average	137.4	115.7	117.8							127.4	141.7	210.8	226.2	122.9	162.4	170.4	145.0	120.0
1929: Average	132.5	107.6	127.1							131.0	143.8	169.0	173.5	124.3	171.0	164.8	127.2	114.3
1932: Average	86.5	82.6	79.3							84.9	82.3	103.5	105.9	91.1	91.2	112.6	71.1	89.6
1939: Average	95.2	94.5	96.6	96.6	101.1	88.9	99.5	93.8	101.0	95.9	91.0	94.5	95.1	92.3	93.3	95.5	87.7	100.6
1940: August	93.5	93.4	95.7	95.4	99.6	88.0	98.8	94.6	99.6	93.1	90.7	92.4	92.8	91.6	90.3	94.9	84.5	95.6
1940: Average	96.6	96.8	95.8	94.4	102.8	81.1	99.7	94.8	110.6	101.4	93.8	96.5	97.3	92.4	100.6	92.5	82.2	96.8
1941: Average	105.5	97.9	107.5	106.5	110.8	100.1	106.6	102.1	124.5	112.0	112.2	103.2	104.2	97.9	106.7	101.5	94.0	106.4
1941: December	113.1	102.5	111.1	109.7	114.4	103.2	108.1	100.5	138.9	120.5	138.1	110.5	111.0	106.3	118.3	114.1	108.5	114.4
1942: Average	123.9	105.1	126.0	122.5	123.6	120.4	124.1	122.6	163.0	125.4	136.5	130.8	132.8	121.6	136.3	122.1	119.6	126.6
1943: Average	138.0	107.6	133.8	124.2	124.7	119.9	136.9	146.1	206.5	134.6	161.9	168.8	178.0	130.6	158.9	124.8	126.1	127.1
1944: Average	136.1	108.4	129.9	117.9	118.7	112.2	134.5	151.0	207.6	133.6	153.9	168.2	177.2	129.5	164.5	124.3	123.3	126.5
1945: Average	139.1	109.0	131.2	118.0	118.4	112.6	136.0	154.4	217.1	133.9	164.4	177.1	188.2	130.2	168.2	124.7	124.0	126.5
1945: August	140.9	109.1	131.8	118.1	118.5	112.6	136.4	157.3	217.8	133.4	171.4	183.5	196.2	130.3	168.6	124.7	124.0	126.6
1946: Average	159.6	125.0	161.3	150.8	150.5	148.2	163.9	174.0	236.2	165.1	168.8	182.4	190.7	140.8	190.4	139.6	152.1	143.9
1946: June	145.6	122.1	134.0	120.4	121.2	114.3	139.0	162.8	219.7	147.8	147.1	183.5	196.7	127.5	172.5	125.4	126.4	136.2
1946: November	187.7	140.6	203.6	197.9	191.0	207.1	205.4	188.9	265.0	198.5	201.6	184.5	182.3	167.7	251.6	167.8	244.4	170.5
1947: Average	193.8	155.4	217.1	214.7	213.6	215.9	220.1	183.2	271.4	186.2	200.8	199.4	201.5	166.2	263.5	186.8	197.5	180.0
1947: June	190.5	154.6	216.9	216.1	216.4	213.6	226.7	182.3	254.7	171.5	183.0	205.0	208.0	169.7	262.6	181.3	188.3	179.7
1947: July	193.1	155.0	220.2	219.7	220.8	216.4	228.6	181.9	260.6	178.8	203.0	202.0	204.2	168.5	263.6	180.8	182.0	179.7
1947: August	196.5	155.7	228.4	229.8	230.5	229.3	232.1	180.5	262.4	183.8	212.3	199.8	202.1	165.7	263.4	181.7	178.5	179.8
1947: September	203.5	157.8	240.6	241.9	239.7	245.9	244.0	191.4	275.7	195.2	235.9	198.2	202.4	157.3	261.2	187.0	176.6	181.8
1947: October	201.6	160.3	235.5	234.9	233.6	240.9	226.2	189.5	286.5	190.1	232.7	196.6	201.1	155.2	255.6	190.8	190.0	181.8
1947: November	202.7	167.9	227.0	223.6	226.3	219.7	227.1	184.6	302.4	198.4	224.7	199.6	205.0	156.5	251.7	194.7	196.4	183.2
1947: December	206.9	170.5	227.3	223.2	227.6	218.2	221.5	190.7	302.3	204.9	236.1	205.3	212.1	157.3	255.4	198.5	208.2	183.7
1948: January	209.7	172.7	237.5	233.4	239.7	225.9	231.5	200.0	310.9	205.7	213.6	208.3	215.7	155.0	256.8	201.9	209.3	183.4
1948: February	204.7	171.8	224.8	218.0	228.2	202.2	223.4	196.4	315.0	204.4	189.2	213.0	222.0	157.7	256.0	204.0	194.2	176.8
1948: March	202.3	171.0	224.7	218.2	228.5	204.3	216.8	194.7	313.6	201.1	186.3	206.9	214.2	157.7	253.9	204.4	191.7	174.4
1948: April	207.9	171.0	233.8	229.5	241.2	212.3	232.6	198.4	307.2	205.8	184.7	217.4	228.4	156.4	252.1	204.4	191.4	173.6
1948: May	210.9	171.1	244.2	242.0	255.8	219.1	253.5	202.1	305.0	204.8	184.9	218.0	229.4	156.4	250.0	204.6	196.6	173.0
1948: June	214.1	171.2	255.1	255.2	273.9	223.5	271.2	207.6	299.3	205.9	194.2	214.9	225.2	157.4	248.0	205.1	200.5	170.6

¹ The Bureau of Labor Statistics retail food prices are obtained monthly during the first three days of the week containing the fifteenth of the month, through voluntary reports from chain and independent retail food dealers. Articles included are selected to represent food sales to moderate-income families.

The indexes, based on the retail prices of 50 foods, are computed by the fixed-base-weighted-aggregate method, using weights representing (1) relative importance of chain and independent store sales, in computing city average prices; (2) food purchases by families of wage earners and moderate-

income workers, in computing city indexes; and (3) population weights, in combining city aggregates in order to derive average prices and indexes for all cities combined.

Indexes of retail food prices in 56 large cities combined, by commodity groups, for the years 1923 through 1945 (1935-39=100), may be found in Bulletin No. 899, "Retail Prices of Food—1944 and 1945," Bureau of Labor Statistics, U. S. Department of Labor, table 2, p. 4. Mimeographed tables of the same data, by months, January 1935 to date, are available upon request.

TABLE D-5: Indexes of Retail Prices of Foods, by City

[1935-39=100]

City	June 1948	May 1948	Apr. 1948	Mar. 1948	Feb. 1948	Jan. 1948	Dec. 1947	Nov. 1947	Oct. 1947	Sept. 1947	Aug. 1947	July 1947	June 1947	June 1946	Aug. 1939
United States.....	214.1	210.9	207.9	202.3	204.7	209.7	206.9	202.7	201.6	203.5	196.5	193.1	190.5	145.6	93.
Atlanta, Ga.....	209.9	207.9	204.7	201.1	205.6	211.9	211.1	206.9	211.1	209.4	198.9	194.5	193.0	141.0	92.
Baltimore, Md.....	225.3	221.6	217.8	212.3	214.5	220.2	217.8	211.8	211.5	212.8	206.9	204.6	202.2	152.4	94.
Birmingham, Ala.....	212.7	209.6	207.5	207.2	211.1	218.0	217.0	212.7	210.7	210.9	204.8	201.8	197.3	147.7	90.
Boston, Mass.....	204.1	199.2	198.2	192.2	195.0	200.3	195.7	192.4	191.8	195.3	187.9	183.5	179.6	138.0	93.
Bridgeport, Conn.....	210.3	207.5	201.4	195.6	197.5	204.5	199.0	196.5	195.6	196.8	191.3	187.7	186.9	139.1	93.
Buffalo, N. Y.....	211.6	207.9	200.2	196.6	196.7	202.1	200.3	194.8	193.3	196.5	192.4	189.7	187.0	140.2	94.
Butte, Mont.....	214.7	207.4	201.3	200.5	202.1	204.8	195.8	194.2	195.0	195.7	193.8	188.9	185.9	139.7	94.
Cedar Rapids, Iowa ¹	224.3	219.7	217.0	208.2	208.9	214.6	213.0	209.1	208.7	212.0	204.4	203.7	203.2	148.2	95.
Charleston, S. C.....	208.1	206.7	204.8	199.1	200.2	206.6	203.1	198.9	201.4	198.0	189.8	190.6	188.3	140.8	95.
Chicago, Ill.....	221.3	218.4	212.2	204.3	204.8	213.2	210.5	207.8	207.1	211.0	203.1	198.4	193.9	142.8	92.
Cincinnati, Ohio.....	216.3	213.5	210.1	206.1	209.0	213.0	211.6	204.2	206.9	206.7	198.3	194.3	191.1	141.4	90.
Cleveland, Ohio.....	223.7	218.0	213.0	209.3	212.5	217.6	212.3	206.1	208.7	211.0	204.3	199.7	198.3	149.3	93.
Columbus, Ohio.....	199.2	195.3	193.1	190.8	192.6	196.7	194.4	190.1	192.0	190.0	184.9	179.3	178.4	136.4	88.
Dallas, Tex.....	210.8	210.5	206.7	203.0	205.7	210.3	208.2	204.4	201.6	200.3	195.5	192.8	191.4	142.4	91.
Denver, Colo.....	216.5	213.3	208.5	202.3	203.4	208.6	205.6	201.0	197.2	199.0	195.8	191.6	191.9	145.3	92.
Detroit, Mich.....	211.3	208.0	203.9	197.7	199.4	205.1	202.0	196.7	199.0	197.4	195.5	191.4	188.5	145.4	90.
Fall River, Mass.....	211.3	207.2	201.2	197.2	198.4	202.6	199.0	195.0	195.6	195.8	190.0	189.7	186.3	138.1	95.
Houston, Tex.....	220.0	218.1	219.3	216.0	218.1	221.5	218.1	210.2	208.7	206.4	200.8	198.7	196.2	144.0	97.
Indianapolis, Ind.....	211.5	208.0	205.7	203.8	204.2	208.2	208.8	204.3	204.5	203.0	195.5	191.7	188.7	141.5	90.
Jackson, Miss.....	216.7	218.0	218.3	214.6	221.3	223.3	223.2	213.1	212.6	212.0	209.5	205.6	202.7	150.6	90.
Jacksonville, Fla.....	222.9	217.3	214.7	208.1	212.2	216.2	216.6	211.0	214.7	209.1	205.0	201.8	199.1	150.8	93.
Kansas City, Mo.....	204.4	202.2	197.9	193.0	192.5	199.4	197.3	194.2	193.5	193.5	183.5	181.3	180.0	134.8	91.
Knoxville, Tenn. ¹	238.4	236.2	233.9	230.0	239.6	244.3	243.5	235.6	236.9	235.9	225.9	225.8	223.0	165.6	95.
Little Rock, Ark.....	210.0	209.2	206.4	203.8	206.1	211.4	211.8	200.4	200.4	201.3	195.1	193.6	189.8	139.1	94.
Los Angeles, Calif.....	212.1	212.6	213.9	208.9	210.9	212.2	211.1	206.7	201.9	204.2	195.4	193.8	193.8	154.8	94.
Louisville, Ky.....	203.8	201.6	198.2	193.9	198.0	200.1	198.9	195.8	196.2	198.2	189.7	185.4	183.4	135.6	92.
Manchester, N. H.....	213.0	208.9	204.9	202.0	203.2	208.8	204.7	199.0	198.0	201.3	196.8	192.6	190.3	144.4	94.
Memphis, Tenn.....	226.7	223.2	222.2	219.9	224.5	230.7	229.7	226.2	223.6	220.5	213.5	210.1	205.1	153.6	89.
Milwaukee, Wis.....	215.3	213.7	210.9	204.6	203.4	206.4	204.6	200.7	197.6	200.1	196.8	193.4	190.8	144.3	91.
Minneapolis, Minn.....	206.2	206.0	203.0	198.1	197.2	202.6	199.3	193.7	194.6	197.2	187.4	182.5	182.6	137.5	95.
Mobile, Ala.....	219.8	217.0	216.3	212.2	215.5	219.6	216.3	206.8	209.3	206.8	200.8	198.6	196.9	149.8	95.
Newark, N. J.....	209.9	204.7	203.0	196.4	200.3	201.4	199.4	197.4	194.6	196.8	190.0	186.3	184.1	147.9	95.
New Haven, Conn.....	205.4	201.2	197.7	193.0	195.8	201.5	198.9	193.4	193.8	196.1	191.2	187.8	186.4	140.4	93.
New Orleans, La.....	227.3	223.0	228.7	224.3	225.6	226.4	222.1	220.2	219.5	216.8	211.0	207.2	203.7	157.6	97.
New York, N. Y.....	213.9	210.0	208.6	201.2	206.7	209.7	206.1	203.9	200.6	203.0	194.3	191.7	187.9	149.2	95.
Norfolk, Va.....	214.4	213.3	210.5	206.0	210.2	216.5	216.1	210.6	214.3	210.7	203.2	199.5	198.0	146.0	93.
Omaha, Nebr.....	210.1	207.2	202.5	197.7	197.7	204.2	202.6	198.1	195.6	197.9	191.1	187.2	187.4	139.5	92.
Peoria, Ill.....	227.3	223.8	217.0	205.8	208.9	219.5	224.1	220.3	212.3	212.9	211.4	205.5	201.7	151.3	93.
Philadelphia, Pa.....	209.4	205.0	202.8	196.3	199.3	205.6	201.8	197.5	196.2	199.8	191.7	188.9	187.1	143.5	93.
Pittsburgh, Pa.....	219.6	213.7	209.8	204.8	205.4	212.8	209.6	205.2	206.1	209.8	202.0	199.9	196.9	147.1	92.
Portland, Maine.....	204.1	199.4	197.0	192.4	193.5	199.6	195.2	190.7	190.9	193.6	191.0	188.4	185.3	138.4	95.
Portland, Oreg.....	228.2	229.5	223.2	220.4	219.2	223.0	219.0	214.2	208.7	209.9	205.0	202.7	199.7	158.4	96.
Providence, R. I.....	222.0	217.9	213.1	205.5	210.5	215.0	210.5	206.1	206.5	208.2	200.6	199.3	194.2	144.9	93.
Richmond, Va.....	205.3	203.4	200.6	197.6	201.3	209.1	207.6	201.0	205.1	203.8	194.3	188.4	185.8	138.4	92.
Rochester, N. Y.....	208.8	205.1	200.8	196.7	196.9	202.1	200.1	194.9	192.3	195.5	192.2	187.4	185.2	142.6	92.
St. Louis, Mo.....	222.0	218.2	213.6	210.9	212.8	217.2	215.2	209.9	209.4	215.9	205.0	200.9	196.8	147.4	93.
St. Paul, Minn.....	203.7	203.5	200.5	195.3	194.0	198.6	195.9	191.2	191.0	192.1	183.4	179.3	178.5	137.3	94.
Salt Lake City, Utah.....	215.8	216.8	212.9	207.3	207.9	211.3	209.7	202.6	199.4	200.7	197.6	192.2	192.6	151.7	94.
San Francisco, Calif.....	221.6	223.4	219.5	215.3	215.4	218.9	215.7	214.4	208.8	210.4	200.4	200.4	196.9	155.5	93.
Savannah, Ga.....	224.5	223.3	221.4	213.6	219.6	222.9	217.5	219.2	219.2	220.3	215.1	207.4	209.4	158.5	96.
Scranton, Pa.....	216.1	212.2	208.9	201.8	203.2	213.1	210.0	202.8	199.1	206.6	199.5	196.1	194.9	144.0	92.
Seattle, Wash.....	220.3	221.4	215.5	212.5	214.7	218.4	213.4	207.6	205.4	206.0	200.3	197.1	193.3	151.6	94.
Springfield, Ill.....	224.4	219.3	212.6	209.1	211.4	217.9	217.3	213.2	213.6	217.1	211.0	205.9	203.5	150.1	94.
Washington, D. C.....	215.4	209.7	205.1	198.9	202.0	209.5	207.4	202.0	200.9	202.9	197.1	190.2	190.9	145.5	94.
Wichita, Kans ¹	226.4	225.3	220.3	215.9	215.1	222.4	221.6	215.1	213.8	213.8	201.8	199.8	197.3	154.4	95.
Winston-Salem, N. C. ¹	209.5	208.4	206.0	202.7	207.9	214.5	211.3	207.1	208.4	205.8	199.0	195.0	194.4	145.3	95.

¹ June 1940=100.

TABLE D-6: Average Retail Prices and Indexes of Selected Foods

		Commodity	Average price June 1948	Indexes 1935-39=100													
June 1948	May 1948			Apr. 1948	Mar. 1948	Feb. 1948	Jan. 1948	Dec. 1947	Nov. 1947	Oct. 1947	Sept. 1947	Aug. 1947	July 1947	June 1947	Aug-1939		
45.6	90.1																
41.0	92.1	Cereals and bakery products:															
52.4	94.1	Cereals:	Cents														
47.7	90.1	Flour, wheat.....5 pounds.....	48.7	188.4	189.4	189.6	192.4	197.3	210.9	209.6	204.8	194.0	189.2	187.0	187.4	189.9	82.1
38.0	92.1	Corn flakes.....11 ounces.....	16.7	177.2	175.7	175.8	173.3	172.8	172.9	169.3	164.3	157.9	151.7	144.9	140.7	135.3	92.7
39.1	93.1	Corn meal.....pound.....	11.0	213.7	215.7	216.4	216.6	219.9	219.9	218.1	217.5	211.9	204.5	192.4	182.1	178.1	90.7
40.2	94.1	Rice ¹.....do.....	21.3	119.6	118.6	118.4	118.1	118.4	117.3	116.9	116.8	114.0	111.5	106.8	100.0	(²)	(³)
39.7	94.1	Rollod oats ¹.....20 ounces.....	17.1	155.0	154.8	154.8	153.5	153.4	153.6	152.6	151.1	143.4	135.6	130.9	128.3	127.7	(³)
38.2	94.1	Bakery products:															
40.8	95.1	Bread, white.....pound.....	13.9	163.5	163.5	163.2	163.1	163.1	162.3	159.8	157.5	149.3	147.9	146.8	146.7	146.5	93.2
2.8	92.1	Vanilla cookies.....do.....	43.9	190.3	188.8	189.2	187.9	187.7	183.7	180.2	178.7	176.2	176.3	174.9	174.9	173.3	(⁴)
1.4	90.1	Meats, poultry, and fish:															
9.3	93.1	Meats:															
6.4	88.1	Beef:															
5.3	91.1	Round steak.....do.....	97.2	287.6	267.3	250.7	234.0	231.4	248.4	236.4	234.2	243.8	256.4	247.6	236.7	230.9	102.7
	92.1	Rib roast.....do.....	76.8	266.7	249.9	238.2	227.0	227.9	242.3	231.7	229.9	237.0	241.7	231.8	220.4	216.0	97.4
		Chuck roast.....do.....	69.5	309.6	283.4	263.3	249.6	250.6	263.1	251.5	253.5	260.1	258.9	248.5	233.3	225.7	97.1
		Hamburger ¹.....do.....	60.2	194.7	178.6	166.3	158.0	157.3	159.7	151.5	150.3	154.4	155.8	151.3	145.3	142.0	(⁴)
5.4	90.1	Veal:															
3.1	93.1	Cutlets.....do.....	100.7	252.5	245.6	234.9	226.8	228.0	230.0	213.1	211.8	217.7	222.6	212.0	210.2	211.4	101.1
1.0	97.1	Pork:															
5	90.1	Chops.....do.....	78.5	238.1	233.5	223.2	212.1	200.1	219.4	206.2	214.7	248.8	257.9	239.2	226.4	225.3	90.8
6		Bacon, sliced.....do.....	76.9	201.9	199.1	191.3	185.7	194.7	227.7	228.8	227.6	230.4	224.7	208.4	195.5	189.9	80.9
8	95.1	Ham, whole.....do.....	68.0	231.2	223.7	220.9	213.6	212.0	234.8	223.3	218.2	244.2	256.7	245.3	231.2	227.7	92.7
		Salt pork.....do.....	41.1	196.6	203.5	209.9	214.7	238.2	259.6	275.3	265.6	243.7	227.7	194.9	188.3	189.5	69.0
6	91.1	Lamb:															
1	94.1	Leg.....do.....	78.2	275.6	257.6	236.3	220.3	226.9	235.2	225.0	230.7	220.8	247.9	235.8	232.3	233.0	95.7
8	94.1	Poultry: Roasting chickens.....do.....	62.6	207.6	202.1	198.4	194.7	196.4	200.0	190.7	184.6	189.5	191.4	180.5	181.9	182.3	94.6
6	92.1	Fish:															
4	94.1	Fish (fresh, frozen) ¹.....do.....	(⁶)	251.8	261.3	264.9	274.4	276.3	270.5	260.7	262.3	248.8	242.7	231.8	231.5	225.1	98.8
3	92.1	Salmon, pink ¹.....16-ounce can..	53.2	405.2	399.7	397.1	394.1	393.7	394.9	391.0	386.7	365.6	342.2	323.1	317.5	313.8	97.4
5	93.1	Dairy products:															
	95.1	Butter.....pound.....	91.0	249.8	254.2	255.4	237.4	248.4	258.1	262.0	242.2	222.4	251.7	222.1	210.6	194.3	84.0
		Cheese.....do.....	66.2	254.6	248.1	241.5	243.7	247.9	242.2	236.1	230.9	226.2	221.0	215.6	215.6	211.4	92.3
		Milk, fresh (delivered).....quart.....	21.2	174.0	171.5	174.3	174.6	174.3	173.3	171.2	171.0	167.5	163.0	158.8	155.9	151.8	97.1
		Milk, fresh (grocery).....do.....	20.3	179.3	177.3	179.0	179.5	179.7	178.5	176.3	175.2	171.8	167.2	162.4	159.5	155.1	96.3
		Milk, evaporated.....14½-ounce can..	15.0	210.9	202.1	197.2	197.1	195.8	189.6	186.4	182.3	177.2	175.3	175.2	175.1	176.6	93.9
		Eggs, fresh.....dozen.....	67.3	194.2	184.9	184.7	186.3	189.2	213.6	236.1	224.7	232.7	235.9	212.3	203.0	183.0	90.7
		Fruits and vegetables:															
		Fresh fruits:															
		Apples.....pound.....	14.1	269.2	229.1	208.2	205.6	208.6	219.2	221.8	214.3	216.1	219.7	209.8	259.6	295.9	81.6
		Bananas.....do.....	15.8	261.7	257.8	256.3	255.3	257.4	257.9	257.8	256.9	254.6	252.3	245.9	247.1	250.0	97.3
		Oranges, size 200.....dozen.....	43.8	155.1	149.2	142.9	145.1	135.9	133.5	133.4	147.9	172.2	174.1	181.0	151.1	150.8	96.9
		Fresh vegetables:															
		Beans, green.....pound.....	20.2	185.1	229.1	229.5	191.2	257.2	199.9	186.7	237.1	215.4	157.4	122.2	138.3	164.3	61.7
		Cabbage.....do.....	6.9	180.1	202.3	250.5	174.8	191.5	222.9	237.2	192.9	165.3	170.0	234.8	168.9	204.5	103.2
		Carrots.....bunch.....	14.1	263.2	310.1	254.3	227.8	261.3	246.3	311.3	261.3	241.8	205.7	179.4	180.2	170.1	84.9
		Lettuce.....head.....	13.5	164.1	200.7	159.9	138.0	153.5	201.0	179.9	170.8	151.6	189.1	172.4	146.3	139.6	97.6
		Onions.....pound.....	10.8	262.4	291.0	440.9	386.2	364.8	285.6	260.7	229.3	194.5	188.9	190.2	184.7	180.1	86.8
		Potatoes.....15 pounds.....	94.6	263.5	261.7	253.6	247.0	246.9	234.4	222.5	211.1	201.7	202.7	214.8	252.2	244.5	91.9
		Spinach.....pound.....	10.4	145.0	158.4	167.4	171.5	221.5	191.4	167.5	154.1	172.2	195.5	174.4	165.7	151.2	118.4
		Sweetpotatoes.....do.....	14.2	273.4	225.2	213.1	208.3	207.2	196.4	183.9	173.3	174.2	195.8	234.9	226.7	223.8	115.7
		Canned fruits:															
		Peaches.....No. 2½ can.....	31.0	160.8	160.8	160.6	161.0	161.5	162.4	161.9	162.1	162.4	163.8	168.1	168.6	168.1	92.3
		Pineapple.....do.....	36.6	168.1	166.7	166.3	164.3	163.0	162.1	160.1	158.2	154.6	152.8	151.7	152.0	150.7	96.0
		Canned vegetables:															
		Corn.....No. 2 can.....	19.7	158.2	157.9	156.6	156.9	157.0	156.6	155.5	152.5	149.8	146.9	147.1	146.5	145.5	88.6
		Peas.....do.....	14.7	112.8	112.3	113.5	115.5	118.0	118.0	117.9	117.9	118.0	116.9	118.3	118.7	120.0	89.8
		Tomatoes.....do.....	16.6	184.8	183.0	183.2	186.2	185.0	185.9	185.5	185.4	183.9	191.8	213.2	220.6	224.7	92.5
		Dried fruits: Prunes.....pound.....	20.8	204.3	206.9	208.6	211.2	216.0	217.8	219.4	219.0	228.7	236.8	245.3	246.4	245.5	94.7
		Dried vegetables: Navy beans.....do.....	22.8	310.5	311.6	314.3	314.9	312.9	311.9	306.0	297.5	292.3	294.2	286.6	285.4	284.2	83.0
		Beverages: Coffee.....do.....	51.4	204.7	204.2	204.0	204.0	203.6	201.5	198.1	194.3	190.5	186.6	181.3	180.5	181.1	93.3
		Fats and oils:															
		Lard.....do.....	29.6	198.5	198.2	194.1	191.9	196.0	238.8	242.7	228.6	215.9	181.3	166.8	170.3	180.8	65.2
		Hydrogenated veg. shortening ¹.....do.....	45.2	218.2	211.4	207.1	214.4	217.6	225.8	220.0	197.7	191.5	190.9	203.6	212.5	219.2	93.9
		Salad dressing.....pint.....	40.5	167.1	164.4	159.8	159.0	158.8	156.1	152.4	150.2	149.7	150.3	151.8	154.2	158.6	(⁴)
		Oleomargarine.....pound.....	44.1	242.0	232.6	223.9	224.0	227.8	230.5	228.9	214.4	208.9	198.0	219.1	219.9	221.5	93.6
		Sugar and sweets:															
		Sugar.....do.....	9.2	171.4	173.8	174.5	175.3	177.7	184.3	184.6	184.1	182.7	182.0	180.7	180.6	181.0	95.6

¹ July 1947=100.² Index not computed.³ February 1943=100.

Not priced in earlier period.

⁴ 1938-39=100.⁵ Average price not computed.⁶ Formerly published as shortening in other containers.

TABLE D-7: Indexes of Wholesale Prices,¹ by Group of Commodities, for Selected Periods

[1926=100]

Year and month	All commodities ²	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous commodities	Raw materials	Semi-manufactured articles	Manufactured products ³	All commodities except farm products ⁴
1913: Average	69.8	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.1	93.1	68.8	74.9	69.4	69.0
1914: July	67.3	71.4	62.9	69.7	55.3	55.7	79.1	52.9	77.9	56.7	88.1	67.3	67.8	66.9	65.7
1918: November	136.3	150.3	128.6	131.6	142.6	114.3	143.5	101.8	178.0	99.2	142.3	138.8	162.7	130.4	131.0
1920: May	167.2	169.8	147.3	193.2	188.3	159.8	155.5	164.4	173.7	143.3	176.5	163.4	253.0	157.8	165.4
1929: Average	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	97.5	93.9	94.5	93.3
1932: Average	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	55.1	59.3	70.3	68.3
1939: Average	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	70.2	77.0	80.4	79.5
August	75.0	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	73.3	66.5	74.5	79.1	77.9
1940: Average	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	71.9	79.1	81.6	80.8
1941: Average	87.3	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	83.5	86.9	89.1	88.3
December	93.6	94.7	90.5	114.8	91.8	78.4	103.3	107.8	90.4	101.1	87.6	92.3	90.1	94.6	93.3
1942: Average	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	100.6	92.6	98.6	97.0
1943: Average	103.1	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	112.1	92.9	100.1	98.7
1944: Average	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	113.2	94.1	100.8	99.6
1945: Average	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	116.8	95.9	101.8	100.8
August	105.7	126.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	116.3	95.5	101.8	100.9
1946: Average	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	134.7	110.8	116.1	114.9
June	112.9	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	126.3	105.7	107.3	106.7
November	139.7	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	153.4	129.1	134.7	132.9
1947: Average	*152.1	*181.2	168.7	*182.4	*141.7	108.7	*145.0	*179.7	127.3	*131.1	*115.5	165.6	148.5	*146.0	*145.5
June	*147.7	*177.8	161.8	*173.8	*139.9	*104.0	142.0	*174.1	*120.8	*129.7	*113.5	160.2	*145.1	*142.0	*140.9
July	150.6	181.4	167.1	*179.1	*140.5	*109.0	*143.1	*175.5	118.8	129.8	*113.2	165.3	*146.1	*144.2	*143.7
August	*153.7	*181.6	172.3	*182.8	*141.8	*112.6	*148.5	*179.6	117.5	*129.9	*113.1	167.0	*148.8	*147.9	*147.3
September	157.4	186.4	*179.2	*185.6	*142.4	*114.2	150.1	*183.4	122.3	*131.3	115.9	*170.9	*150.5	*151.8	*150.8
October	158.5	189.7	*177.7	*193.1	*143.4	*116.1	150.5	185.8	128.6	*132.4	117.1	*175.2	*152.6	*151.2	*151.5
November	*159.6	187.9	*177.9	*202.5	*145.2	*118.2	150.8	*187.7	135.8	*137.5	118.8	175.5	*154.9	*152.4	*153.1
December	163.2	196.7	178.4	*203.4	*148.0	*124.6	*151.5	191.0	135.0	*139.4	121.5	182.0	*156.5	*154.9	*155.6
1948: January	165.7	199.2	179.9	200.3	*148.4	130.0	154.3	*193.3	138.8	*141.3	*123.6	183.9	*156.8	*157.8	*158.2
February	*160.9	185.3	172.4	192.8	*148.9	*130.8	155.3	*192.7	134.6	141.8	*120.1	174.9	*155.2	154.5	*155.3
March	161.4	186.0	173.8	185.4	149.8	130.9	155.9	*193.1	136.1	142.0	120.8	174.7	152.9	155.8	155.7
April	*162.8	186.7	176.7	186.1	*150.3	131.6	157.2	*195.0	136.2	142.3	121.8	175.5	*154.1	*157.6	157.3
May	*163.9	189.1	177.4	187.5	*150.2	132.6	157.1	*196.8	134.7	142.6	121.5	177.6	*153.6	*158.5	*158.2
June	166.2	196.0	181.4	186.8	149.6	133.1	158.7	196.8	135.7	143.4	121.4	182.6	154.3	159.6	159.4

¹ BLS wholesale price data, for the most part, represent prices in primary markets. They are prices charged by manufacturers or producers or are prices prevailing on organized exchanges. The weekly index is calculated from 1-day-a-week prices; the monthly index from an average of these prices. Monthly indexes for the last 2 months are preliminary.

The indexes currently are computed by the fixed base aggregate method, with weights representing quantities produced for sale in 1929-31. (For a detailed description of the method of calculation see "Revised Method of Calculation of the Bureau of Labor Statistics Wholesale Price Index," in the Journal of the American Statistical Association, December 1937.)

Because of past differences in the method of computation the weekly and monthly indexes should not be compared directly. The weekly index is

useful only to indicate week-to-week changes and to provide later data on price movements. It is not revised to take account of more complete reports.

Mimeographed tables are available, upon request to the Bureau, giving monthly indexes for major groups of commodities since 1890 and for subgroups and economic groups since 1913. Weekly indexes have been prepared since 1937.

² Includes current motor vehicle prices beginning with October 1946. The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in September 1946, the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sale and the Bureau carried April 1942 prices forward in each computation through September 1946.

*Corrected.

TABLE D-8: Indexes of Wholesale Prices,¹ by Group of Commodities, by Weeks

[Indexes 1926=100. Not directly comparable with monthly data. See footnote 1, table D-7]

Week ending	All commodities ²	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous commodities	Raw materials	Semi-manufactured products	Manufactured products ³	All commodities except farm products ⁴
1948															
May 1	162.6	186.9	177.5	188.0	148.1	132.6	157.2	195.2	133.7	144.4	121.3	176.8	153.7	157.9	157.2
May 8	161.9	184.0	174.8	188.2	148.2	133.0	156.8	195.9	133.4	144.6	121.3	175.1	153.3	157.6	156.9
May 15	163.5	187.9	178.9	189.0	148.1	133.4	156.5	195.9	134.4	144.7	121.2	177.7	152.5	159.0	158.0
May 22	163.5	189.2	177.2	188.6	148.6	133.7	156.6	196.6	135.6	144.7	121.4	178.6	152.5	158.7	157.8
May 29	164.4	193.0	178.0	187.6	149.5	133.8	156.6	196.9	134.8	144.7	121.0	180.8	152.6	159.1	158.1
June 5	164.2	192.4	178.0	187.0	149.2	133.8	156.8	196.6	135.2	145.1	121.0	180.9	153.0	158.6	158.0
June 12	164.9	193.5	180.1	186.7	148.8	133.8	157.1	196.9	137.1	145.1	120.9	181.6	153.0	159.3	158.5
June 19	165.3	194.5	180.7	187.7	148.5	134.0	157.6	197.2	136.0	145.1	121.1	182.7	153.6	159.5	158.8
June 26	166.7	198.4	183.0	188.6	149.1	134.0	158.8	197.4	135.5	145.0	121.2	185.2	153.9	160.5	159.7
July 3	166.7	197.2	184.1	188.3	148.1	134.1	159.4	197.6	135.5	145.0	121.1	184.3	154.0	160.9	159.9
July 10	166.8	196.1	185.3	188.1	148.1	134.7	159.4	197.5	134.5	145.8	120.3	184.2	154.0	161.1	160.3
July 17	168.9	198.1	191.2	189.1	148.0	135.8	160.9	197.9	134.5	145.9	119.4	186.4	154.7	163.4	162.4
July 24	168.2	194.6	190.4	189.5	148.1	136.5	160.9	198.0	132.9	145.9	119.2	184.6	154.5	163.1	162.3
July 31	168.3	192.2	187.7	189.6	148.3	136.8	167.3	200.7	133.1	146.0	118.6	183.4	152.9	164.1	162.9

¹ See footnote 1, table D-7.

TABLE D-9: Indexes of Wholesale Prices,¹ by Group and Subgroup of Commodities

[1926=100]

Group and subgroup	1948						1947							1946	1939
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	June	Aug.
All commodities ²	166.2	*163.9	*162.8	161.4	*160.9	165.7	163.2	*159.6	158.5	157.4	*153.7	150.6	*147.7	112.9	75.0
Farm products.....	196.0	189.1	186.7	186.0	185.3	199.2	196.7	187.9	189.7	186.4	*181.6	181.4	*177.8	140.1	61.0
Grains.....	209.2	213.5	217.9	218.0	220.0	256.3	252.7	245.5	241.4	230.3	208.8	202.3	206.0	151.8	51.5
Livestock and poultry.....	239.2	219.0	204.4	209.4	210.0	232.9	226.3	211.0	224.5	224.8	215.9	209.9	200.9	137.4	66.0
Other farm products.....	165.4	163.3	166.4	162.2	159.9	162.4	162.5	157.2	153.7	150.3	152.6	157.5	*155.2	137.5	60.1
Foodstuffs.....	181.4	177.4	176.7	173.8	172.4	179.9	178.4	*177.9	*177.7	*179.2	172.3	167.1	161.8	112.9	67.2
Dairy products.....	181.3	176.6	181.0	179.8	184.8	183.9	183.5	175.9	167.3	170.6	164.3	*153.0	*141.1	127.3	67.9
Cereal products.....	155.1	156.3	158.0	158.6	160.2	170.1	170.6	*172.1	*166.7	*158.2	153.3	*154.4	*149.3	101.7	71.9
Fruits and vegetables.....	147.6	147.0	148.6	145.7	*144.5	*140.7	135.4	135.5	130.8	130.1	133.0	139.7	145.2	136.1	58.5
Meats.....	241.3	233.2	226.0	217.1	206.2	222.3	214.8	217.6	230.0	244.8	234.6	217.9	208.6	110.1	73.7
Other foodstuffs.....	148.1	144.2	144.4	144.3	146.7	155.0	160.0	159.4	157.2	150.7	140.7	*141.8	139.7	98.1	60.3
Hides and leather products.....	186.8	187.5	186.1	185.4	192.8	200.3	*203.4	*202.5	*193.1	*185.6	*182.8	*179.1	*173.8	122.4	92.7
Shoes.....	185.8	185.6	191.7	193.8	194.7	194.3	190.7	187.0	*180.6	*176.8	*176.5	*174.8	*173.8	129.5	100.8
Hides and skins.....	215.2	218.0	199.3	186.2	207.2	238.9	256.9	*263.2	243.7	221.1	*214.5	203.5	187.1	121.5	77.2
Leather.....	186.9	188.2	183.6	185.9	*199.6	*209.4	*217.2	*216.9	*205.0	197.4	*191.1	187.4	178.9	110.7	84.0
Other leather products.....	143.3	143.3	143.3	143.8	143.8	143.8	141.8	141.3	139.6	139.5	139.1	138.8	138.3	115.2	97.1
Textile products.....	149.6	*150.2	*150.3	149.8	*148.9	*148.4	*148.0	*145.2	*143.4	*142.4	*141.8	*140.5	*139.9	109.2	67.8
Clothing.....	145.2	145.8	145.8	144.6	*144.7	*143.4	*137.8	*137.1	*136.2	*135.9	*135.8	*135.8	*135.4	120.3	81.5
Cotton goods.....	213.1	*217.8	*219.2	218.3	214.9	214.8	*213.7	*209.3	*204.7	*202.5	*201.8	*198.5	*196.2	139.4	65.5
Hosiery and underwear.....	105.3	105.4	105.4	105.4	105.0	104.4	103.0	101.4	100.0	99.9	99.9	100.4	100.8	75.8	61.5
Rayon.....	40.7	40.7	40.7	40.7	40.7	40.7	40.0	37.0	37.0	37.0	37.0	37.0	37.0	30.2	28.5
Silk.....	46.4	46.4	46.4	46.4	46.4	46.4	73.3	73.3	71.2	68.3	68.2	68.2	68.4	(9)	44.3
Woolen and worsted goods.....	147.5	147.5	147.5	145.7	*143.0	*141.9	139.6	134.9	*134.3	133.8	133.3	130.1	129.2	112.7	75.5
Other textile products.....	183.1	174.2	170.0	174.7	180.2	181.2	*178.3	*174.9	*175.6	*175.0	*171.2	171.2	173.8	112.3	63.7
Fuel and lighting materials.....	133.1	132.6	131.6	130.9	*130.8	130.0	*124.6	*118.2	*116.1	*114.2	*112.6	*109.0	*104.0	87.8	72.6
Anthracite.....	127.2	125.6	124.6	124.6	*124.5	124.2	123.4	*123.4	*123.1	122.5	121.7	114.2	112.7	106.1	72.1
Bituminous coal.....	182.6	181.8	178.9	177.9	*177.9	176.8	174.3	*173.7	*172.6	170.3	*169.9	*163.2	*145.9	132.8	96.0
Coke.....	206.6	205.4	197.5	190.6	190.6	183.4	182.2	182.0	181.9	170.2	160.7	157.3	133.5	104.2	75.8
Electricity.....	(9)	(9)	66.1	65.7	66.6	66.4	66.5	66.3	64.9	65.2	64.5	65.0	64.4	67.2	75.8
Gas.....	(9)	89.3	89.1	88.7	85.8	84.5	85.4	83.6	86.8	87.0	86.0	85.5	85.8	79.6	80.7
Petroleum and products.....	122.1	122.1	121.8	121.8	121.7	120.7	112.0	99.9	96.5	93.7	92.2	89.8	87.5	64.0	51.7
Metals and metal products ²	158.7	157.1	157.2	155.9	155.3	154.3	*151.5	150.8	150.5	150.1	*148.5	*143.1	142.0	112.2	93.2
Agricultural machinery and equipment.....	132.7	130.4	129.8	129.3	128.9	128.6	127.0	125.5	122.8	121.6	120.4	119.9	119.9	104.5	93.5
Farm machinery.....	134.8	*132.1	131.3	130.8	130.4	130.0	128.6	127.0	124.1	122.8	121.6	121.2	121.2	104.9	94.7
Iron and steel.....	149.2	148.8	149.4	147.7	146.3	144.6	140.2	139.5	139.3	139.0	138.3	131.7	129.9	110.1	95.1
Motor vehicles.....	164.5	*161.7	161.6	161.6	161.6	161.6	*160.8	160.3	159.9	159.4	*156.4	*150.4	149.4	135.5	92.5
Nonferrous metals.....	152.1	150.0	149.8	146.8	146.8	145.5	143.0	142.2	142.0	142.0	141.8	141.8	142.9	99.2	74.6
Plumbing and heating.....	145.3	143.2	138.7	138.7	138.7	*138.8	136.1	*136.1	*136.1	*136.0	*129.4	123.4	119.1	106.0	79.3
Building materials.....	196.8	*196.4	*195.0	193.1	*192.7	*193.3	191.0	*187.7	185.8	*183.4	*179.6	*175.5	*174.1	129.9	89.6
Brick and tile.....	153.3	152.8	152.5	151.6	151.1	150.9	148.8	*148.1	146.4	145.4	144.3	143.3	134.7	121.3	90.5
Cement.....	128.8	128.2	127.5	127.4	127.2	*126.5	121.6	120.6	120.1	*119.1	116.9	114.9	114.3	102.6	91.3
Lumber.....	313.2	312.9	309.2	303.8	303.8	307.3	303.2	*296.0	*290.2	*286.5	*276.9	*268.8	*265.5	176.0	90.1
Paint and paint materials.....	158.7	*158.4	*158.6	156.7	156.6	163.2	164.0	161.8	*160.7	*157.1	*154.2	*155.4	*158.8	108.6	82.1
Plumbing and heating.....	145.3	143.2	138.7	138.7	138.7	*138.8	136.1	*136.1	*136.1	*136.0	*129.4	123.4	119.1	106.0	79.3
Structural steel.....	153.3	153.3	155.8	155.8	149.4	143.0	143.0	143.0	143.0	143.0	143.0	130.8	127.7	120.1	107.3
Other building materials.....	163.5	163.1	162.2	161.8	*159.8	*157.9	155.5	152.6	152.5	*150.7	150.1	146.1	145.1	118.4	89.5
Chemicals and allied products.....	135.7	134.7	136.2	136.1	134.6	138.8	135.0	135.8	128.6	122.3	117.5	118.8	*120.8	96.4	74.2
Chemicals.....	126.2	125.9	126.8	126.8	126.5	125.8	124.1	124.3	122.1	118.2	117.5	119.9	*119.8	98.0	83.8
Drug and pharmaceutical materials.....	153.7	153.3	153.8	154.4	154.3	154.4	154.9	151.1	137.5	136.6	136.6	137.4	156.1	109.4	77.1
Fertilizer materials.....	113.9	115.0	115.2	114.9	*115.1	*115.7	114.4	*112.4	*111.5	109.8	*105.7	*103.8	*102.3	82.7	65.5
Mixed fertilizers.....	102.8	103.2	103.1	103.1	102.8	102.4	101.5	100.8	97.7	97.2	97.3	97.2	96.8	86.6	73.1
Oils and fats.....	212.7	205.0	212.3	211.4	201.5	236.7	215.9	226.7	193.4	163.3	*133.1	*134.9	139.2	102.1	40.6
Housefurnishing goods.....	143.4	*142.6	142.3	142.0	141.8	*141.3	*139.4	*137.5	*132.4	*131.3	*129.9	129.8	*129.7	110.4	85.6
Furnishings.....	147.1	145.8	145.2	144.7	144.4	*143.8	142.8	*140.5	*139.4	138.5	*138.0	138.1	137.2	114.5	90.0
Furniture.....	139.9	*139.6	*139.6	139.4	139.4	139.1	*136.2	*134.7	134.1	131.3	129.1	128.9	128.6	108.5	81.1
Miscellaneous.....	121.4	121.5	121.8	120.8	*120.1	*123.6	121.5	118.8	117.1	115.9	*113.1	*113.2	*113.5	98.5	73.3
Automobile tires and tubes.....	63.4	63.4	63.4	63.4	63.4	63.4	63.4	61.0	60.8	60.8	60.8	60.8	62.5	65.7	59.5
Cattle feed.....	292.4	291.1	296.9	284.2	262.0	336.0	308.2	282.7	280.5	267.2	261.3	269.4	253.3	197.8	68.4
Paper and pulp.....	167.3	167.4	167.5	*167.3	*167.4	168.1	164.7	160.7	159.8	159.5	*158.1	*156.6	*156.7	115.6	80.0
Rubber, crude.....	47.1	47.6	46.7	42.3	42.7	44.7	44.5	49.3	43.0	36.4	33.7	34.6	37.1	46.2	34.9
Other miscellaneous.....	129.8	129.7	130.2	130.2	*130.8	*130.7	130.0	*128.5	126.6	124.6	*122.0	*121.9	*122.5	101.0	81.3

¹ See footnote 1, table D-7.

² See footnote 2, table D-7.

* Not available.

† Revised.

* Corrected.

E: Work Stoppages

TABLE E-1: Work Stoppages Resulting From Labor-Management Disputes ¹

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average).....	2,862	.....	1,130,000	.....	16,900,000	0.2
1945.....	4,750	.....	3,470,000	.....	38,000,000	1.4
1946.....	4,985	.....	4,600,000	.....	116,000,000	1.4
1947.....	3,693	.....	2,170,000	.....	34,600,000	1.4
1947: June.....	379	701	448,000	597,000	3,960,000	1.4
July.....	315	581	242,000	615,000	3,970,000	1.4
August.....	336	583	113,000	250,000	2,520,000	1.4
September.....	219	435	79,200	187,000	1,970,000	1.4
October.....	219	393	64,300	171,000	1,780,000	1.4
November.....	178	328	57,200	139,000	829,000	1.4
December.....	119	236	32,300	56,900	560,000	1.4
1948: January ²	175	250	75,000	100,000	1,000,000	1.4
February ²	200	300	70,000	110,000	725,000	1.4
March ²	225	350	500,000	550,000	6,000,000	1.4
April ²	275	400	175,000	625,000	8,000,000	1.1
May ²	275	425	165,000	350,000	4,100,000	1.1
June ²	310	475	165,000	240,000	2,000,000	1.1

¹ All known work stoppages, arising out of labor-management disputes, involving six or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle in establish-

ments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

² Preliminary estimates.

F: Building and Construction

TABLE F-1: Expenditures for New Construction ¹

[Value of work put in place]

Type of construction	Expenditures (in millions)															
	1948							1947							1947	1946
	July ²	June ²	May ²	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	Total	Total	
Total new construction ⁴	\$1,724	\$1,605	\$1,455	\$1,302	\$1,166	\$1,009	\$1,157	\$1,320	\$1,432	\$1,497	\$1,423	\$1,364	\$1,264	\$13,977	\$10,458	
Private construction.....	1,314	1,228	1,116	1,015	940	837	948	1,097	1,141	1,129	1,086	1,042	966	10,893	8,233	
Residential building (nonfarm).....	667	633	585	525	475	400	500	610	630	590	540	500	455	5,260	3,183	
Nonresidential building (nonfarm) ⁵	333	308	278	263	266	265	273	284	287	275	267	260	254	3,131	3,346	
Industrial.....	114	111	112	116	120	125	130	134	136	137	138	139	139	1,702	1,689	
Commercial.....	128	117	98	87	88	84	85	91	93	82	75	69	67	835	1,110	
Warehouses, office and loft buildings.....	30	28	25	23	22	22	24	22	19	14	14	15	15	216	309	
Stores, restaurants, and garages.....	98	89	73	64	66	62	61	69	74	68	61	54	52	619	801	
Other nonresidential building.....	91	80	68	60	58	56	58	59	58	56	54	52	48	594	547	
Religious.....	22	19	15	13	13	12	13	13	13	13	12	11	10	118	72	
Educational.....	22	19	17	16	15	15	16	17	17	17	16	16	14	164	115	
Hospital and institutional.....	11	10	10	9	9	9	9	9	9	8	9	9	9	107	81	
Remaining types ⁶	36	32	26	22	21	20	20	20	19	18	17	16	15	205	279	
Farm construction.....	81	62	50	37	23	14	14	15	25	50	65	75	60	450	350	
Public utilities.....	233	225	203	190	176	158	161	188	199	214	214	207	197	2,052	1,374	
Railroad.....	33	30	26	25	23	21	24	28	30	32	33	33	31	318	238	
Telephone and telegraph.....	55	55	55	55	54	48	45	55	53	59	54	46	44	510	305	
Other public utilities.....	145	140	122	110	99	89	92	105	116	123	127	128	122	1,224	811	
Public construction.....	410	377	339	287	226	172	209	223	291	368	337	322	298	3,084	2,205	
Residential building.....	3	5	5	6	5	6	9	8	8	9	7	8	9	182	369	
Nonresidential building (other than military or naval facilities).....	86	79	77	71	65	49	53	52	50	53	49	45	42	505	325	
Industrial ⁷	2	2	2	2	1	1	1	0	0	1	1	1	2	25	84	
Educational.....	48	43	40	37	36	30	32	32	29	27	26	25	23	275	101	
Hospital and institutional.....	17	15	15	13	10	7	7	8	8	9	8	7	7	81	80	
All other nonresidential.....	19	19	20	19	18	11	13	12	13	16	14	12	10	124	80	
Military and naval facilities.....	15	12	13	13	12	11	14	17	19	23	22	22	19	204	188	
Highways.....	186	167	136	98	57	41	56	65	119	178	159	149	137	1,233	772	
Sewer and water.....	41	40	39	38	33	25	27	28	32	35	32	32	31	331	194	
Miscellaneous public-service enterprises ⁸	10	10	11	9	9	6	8	8	10	11	12	12	11	117	87	
Conservation and development.....	55	51	45	41	36	28	33	36	41	45	44	42	39	396	240	
All other public ⁹	14	13	13	11	9	6	9	9	12	14	12	12	10	116	30	

¹ Joint estimates of the Bureau of Labor Statistics, U. S. Department of Labor, and the Office of Domestic Commerce, U. S. Department of Commerce. Estimated construction expenditures represent the monetary value of the volume of work accomplished during the given period of time. These figures should be differentiated from permit valuation data reported in the tabulations for urban building authorized and the data on value of contract awards reported in table F-2.

² Preliminary.

³ Revised.

⁴ Includes major additions and alterations.

⁵ Excludes nonresidential building by privately owned public utilities.

⁶ Includes social and recreational buildings, hotels, and miscellaneous buildings not elsewhere classified.

⁷ Excludes expenditures to construct facilities used in atomic energy projects.

⁸ Covers primarily publicly owned electric light and power systems and local transit facilities.

⁹ Covers miscellaneous construction items such as airports, monuments, memorials, etc.

TABLE F-2: Value of Contracts Awarded and Force-Account Work Started on Federally Financed New Construction, by Type of Construction ¹

Period	Value (in thousands)															
	Total new construction ¹	Air-ports ²	Building								Conservation and development			High-ways	All other ⁴	
			Total	Resi- den- tial	Nonresidential						Total	Rec- lama- tion	River, har- bor, and flood control			
					Total	Edu- ca- tional ⁵	Hospital and institutional			Ad- min- istration and general ⁶						Other
							Total	Vet- erans ⁷	Other							
1936.....	\$1,533,439	(*)	\$561,394	\$63,465	\$497,929	(?)	(?)	(?)	(?)	(?)	(?)	\$189,710	\$73,797	\$115,913	\$511,685	\$270,650
1939.....	1,586,604	\$4,753	669,222	231,071	438,151	(?)	(?)	(?)	(?)	(?)	(?)	225,423	115,612	109,811	355,701	331,505
1942.....	7,775,497	579,176	6,130,389	549,472	5,580,917	(?)	(?)	(?)	(?)	(?)	(?)	217,795	150,708	67,087	347,988	500,149
1946.....	1,450,252	14,859	549,656	435,453	114,203	(?)	(?)	(?)	(?)	(?)	(?)	300,405	169,253	131,152	535,784	49,548
1947.....	1,294,069	24,645	276,514	51,186	225,328	\$47,692	\$101,831	\$96,123	\$5,708	\$31,159	\$44,646	308,029	77,095	230,934	657,087	27,794
1947: June.....	181,438	9,079	58,262	21,248	37,014	2,914	5,803	4,059	1,744	4,948	23,349	51,045	11,778	39,267	57,440	5,612
July.....	70,596	1,230	8,459	409	6,050	2,575	1,218	559	659	1,883	374	3,869	1,763	2,106	57,845	1,193
August.....	121,083	1,346	34,055	4,347	29,708	1,304	24,466	24,281	185	2,518	1,420	19,412	16,186	3,226	65,742	528
September.....	89,262	1,109	5,153	409	4,744	1,155	249	217	32	2,565	775	22,197	1,699	20,498	59,827	976
October.....	111,191	4,503	7,928	586	7,342	1,198	705	668	37	1,578	3,861	20,650	3,967	16,683	73,720	4,390
November.....	114,096	772	16,351	711	15,640	912	9,991	9,961	30	3,506	1,231	46,049	628	45,421	49,220	1,704
December.....	112,388	806	32,973	104	32,869	913	26,433	26,378	55	3,332	2,191	19,541	6,928	12,613	54,349	4,719
1948: January.....	105,737	808	14,136	149	13,987	253	8,818	8,603	215	1,961	2,955	41,585	4,667	36,918	47,268	1,940
February.....	155,428	645	46,632	859	45,773	168	41,762	41,557	205	1,735	2,108	57,361	1,229	56,132	49,426	1,364
March.....	145,350	5,322	63,193	61	63,132	256	59,131	58,920	211	1,230	2,515	21,793	6,639	15,154	51,561	3,481
April.....	154,375	2,521	9,867	553	9,314	12	5,606	5,049	557	1,863	1,833	79,782	56,934	22,848	58,247	3,958
May ⁸	114,040	1,199	24,712	364	24,348	468	20,215	20,045	170	1,861	1,804	10,309	4,738	5,571	75,648	2,172
June ⁹	106,306	1,184	21,808	552	21,256	40	13,951	13,655	296	2,089	5,176	12,813	928	11,885	67,767	2,734

¹ Excludes projects classified as "secret" by the military, and all construction for the Atomic Energy Commission. Data for Federal-aid programs cover amounts contributed by both the owner and the Federal Government.

² Includes major additions and alterations.

³ Excludes hangars and other buildings, which are included under building construction.

⁴ Includes educational facilities under the Federal temporary reuse educational facilities program.

⁵ Includes post offices, armories, offices, and customs houses.

⁶ Includes electrification projects, water supply and sewage-disposal systems, forestry projects, railroad construction, and other types of projects not elsewhere classified.

⁷ Unavailable.

⁸ Revised.

⁹ Preliminary.

TABLE F-3: Urban Building Authorized, by Principal Class of Construction and by Type of Building

Period	Total all classes ¹	Valuation (in thousands)							Number of new dwelling units—Housekeeping only					Publicly financed ⁵	
		New residential building							New nonresidential building	Additions, alterations, and repairs	Privately financed				
		Housekeeping					Non-housekeeping ⁴	Total			1-family	2-family ³	Multi-family ⁴		
		Privately financed dwelling units				Publicly financed dwelling units									
		Total	1-family	2-family ³	Multi-family ⁴										
1942.....	\$2,707,573	\$598,570	\$478,658	\$42,629	\$77,283	\$296,933	\$22,910	\$1,510,688	\$278,472	184,892	138,908	15,747	30,237	95,940	
1946.....	4,743,414	2,114,833	1,830,260	103,042	181,531	355,587	43,389	1,458,602	771,023	430,195	358,151	24,326	47,718	93,310	
1947.....	5,549,718	2,880,926	2,361,509	156,408	363,009	35,177	29,831	1,712,672	891,112	501,353	393,550	34,159	73,644	5,100	
1947: May.....	428,878	224,952	189,255	14,068	21,629	0	2,994	128,196	72,736	41,112	33,644	3,085	4,383		
June.....	488,843	252,854	198,408	13,997	40,449	6,517	1,723	141,919	85,830	45,981	34,591	3,480	7,910	1,000	
July.....	537,317	271,142	221,264	14,268	35,610	315	1,809	170,181	93,870	47,167	36,973	3,053	7,141		
August.....	567,979	297,022	238,222	16,432	42,368	1,604	2,966	182,041	84,346	51,121	39,233	3,521	8,367		
September.....	561,536	303,186	251,286	14,780	37,120	2,229	4,080	162,234	89,807	51,877	40,834	2,992	8,051		
October.....	604,165	340,627	275,691	18,032	46,904	3,795	3,450	168,334	87,957	55,870	42,825	3,536	9,509		
November.....	501,556	256,728	201,262	15,724	39,742	6,519	5,620	166,472	66,217	41,010	30,284	3,316	7,410		
December.....	479,881	227,675	179,806	11,951	35,918	2,992	2,284	177,315	69,615	36,088	26,596	2,443	7,049		
1948: January.....	426,531	198,698	150,879	11,501	36,318	6,616	3,224	152,086	65,907	32,523	23,704	2,280	6,539		
February.....	414,339	202,050	146,934	8,954	46,162	9,237	1,441	141,188	60,423	32,166	22,180	1,863	8,123		
March.....	631,621	321,562	252,778	20,016	48,768	597	4,082	222,565	82,815	50,788	37,520	4,092	9,176		
April ⁶	714,954	411,300	317,892	34,372	59,036	1,960	6,166	196,095	99,433	64,387	45,700	6,997	11,690		
May ⁷	653,404	349,044	290,634	17,619	40,791	5,393	2,729	202,859	93,379	52,634	41,327	3,705	7,602		

¹ Building for which building permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits.

The data cover federally and non-federally financed building construction combined. Estimates of non-Federal (private, and State and local government) urban building construction are based primarily on building-permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies. Data from building permits are not adjusted to allow for lapsed permits or for lag between permit issuance and the start of construction. Thus, the estimates do not represent construction actually started during the month.

Urban, as defined by the Bureau of the Census, covers all incorporated places of 2,500 population or more in 1940, and, by special rule, a small number of unincorporated civil divisions.

² Covers additions, alterations, and repairs, as well as new residential and nonresidential building.

³ Includes units in 1-family and 2-family structures with stores.

⁴ Includes units in multifamily structures with stores.

⁵ Covers hotels, dormitories, tourist cabins, and other nonhousekeeping residential buildings.

⁶ Revised.

⁷ Preliminary.

Building

units—House

Public
Finance

ulti-

nity

910

7, 718

4, 644

383

123

367

051

509

410

049

539

123

176

690

602

Incorporated

all number

ential and

usekeeping

TABLE F-4: New Nonresidential Building Authorized in All Urban Places,¹ by General Type and by Geographic Division²

Valuation (in thousands)

Geographic division and type of new nonresi- dential building	1948					1947								1947	1946
	May ¹	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Total	Total
Types	\$202,859	\$196,095	\$222,565	\$141,188	\$152,086	\$177,315	\$166,472	\$168,334	\$162,234	\$182,041	\$170,181	\$141,919	\$128,196	\$1,712,674	\$1,458,602
New England	10,142	10,279	8,956	5,236	26,689	6,307	14,753	12,395	10,949	6,541	10,540	11,363	10,169	109,831	103,716
Middle Atlantic	50,875	27,338	55,770	20,497	9,305	42,529	23,513	21,465	18,445	40,322	28,357	19,729	17,220	271,742	195,151
East North Central	36,170	45,082	33,614	26,458	21,268	29,084	36,414	44,187	36,338	49,539	39,079	27,858	26,609	372,866	338,659
West North Central	12,079	14,985	16,434	16,566	8,813	19,008	12,263	13,476	12,217	10,752	10,799	15,416	11,186	132,163	112,927
South Atlantic	19,745	22,840	25,267	14,562	18,547	21,403	15,958	19,182	17,751	16,321	19,831	18,827	19,605	200,042	171,247
East South Central	7,472	6,176	9,902	3,928	7,152	7,327	5,076	6,159	6,175	6,936	8,342	6,801	5,263	73,138	65,583
West South Central	24,605	21,805	21,558	27,433	27,121	17,923	26,079	15,366	19,454	11,915	19,141	18,335	14,217	193,072	132,641
Mountain	7,817	6,240	8,724	3,826	2,761	4,067	3,828	5,449	6,039	9,646	3,906	3,224	4,423	58,162	40,287
Pacific	33,954	41,350	42,340	22,682	30,460	29,669	28,590	30,657	34,424	30,071	30,184	20,365	10,502	301,658	298,391
Industrial buildings ⁴	26,206	26,899	32,910	16,883	17,453	33,524	22,702	25,194	27,806	40,407	25,762	8,120	25,413	321,847	397,237
New England	2,360	971	1,806	1,051	803	1,642	2,601	1,920	2,504	892	1,616	5,018	1,857	25,952	19,477
Middle Atlantic	8,365	7,518	6,823	3,699	2,250	7,053	3,067	4,963	4,668	7,615	6,743	4,640	3,316	57,755	77,845
East North Central	7,997	9,262	9,513	3,859	5,477	10,137	9,012	9,342	9,538	21,767	9,764	8,827	8,908	118,666	133,599
West North Central	908	3,081	1,728	1,205	971	1,781	1,384	1,671	2,010	3,078	2,137	1,745	1,123	19,890	29,161
South Atlantic	1,496	1,519	4,469	1,640	1,927	3,851	1,410	1,714	1,304	1,315	1,818	1,646	2,021	20,549	34,612
East South Central	691	225	1,088	330	466	1,489	981	717	1,557	1,207	839	1,657	1,323	13,573	14,688
West South Central	1,316	760	2,409	1,637	1,641	2,666	1,456	1,282	1,516	1,687	686	913	2,762	17,519	13,145
Mountain	147	79	383	119	380	181	359	257	504	200	164	322	177	2,852	4,417
Pacific	2,926	3,484	4,691	3,343	3,568	4,724	2,432	3,328	4,205	2,676	1,995	3,352	3,926	45,091	70,293
Commercial buildings ⁵	83,540	83,852	82,366	47,315	72,617	65,591	66,927	78,647	82,681	69,641	72,884	55,599	48,028	686,920	669,574
New England	3,275	3,401	2,547	1,257	12,431	1,804	3,367	4,203	4,233	3,294	3,440	3,222	1,947	32,853	43,164
Middle Atlantic	10,545	11,506	12,753	5,411	5,412	13,222	8,114	10,739	7,641	9,780	9,316	7,357	6,314	90,725	74,569
East North Central	13,959	15,198	10,010	7,891	10,188	11,518	13,767	15,739	14,846	17,196	14,647	7,795	5,931	119,958	119,011
West North Central	6,022	5,692	8,286	2,586	5,171	6,885	5,215	5,960	6,342	4,585	5,624	6,089	4,303	57,240	51,822
South Atlantic	11,924	13,498	9,118	8,170	7,445	7,949	7,721	10,423	11,353	10,031	12,358	11,691	10,987	106,788	87,405
East South Central	3,375	3,891	3,245	2,027	4,172	1,978	2,582	3,619	2,997	3,821	4,762	3,475	2,349	34,680	34,647
West South Central	13,455	10,441	10,917	8,062	12,036	8,705	8,292	9,968	11,651	6,477	7,502	7,897	6,688	91,548	82,156
Mountain	3,275	3,747	4,998	2,093	1,484	1,651	2,753	2,950	3,370	2,431	1,727	1,811	3,036	26,855	26,057
Pacific	17,710	16,478	20,492	9,818	14,278	11,879	15,116	15,046	20,248	12,026	13,508	6,262	6,473	126,273	150,743
Community buildings ⁶	66,111	51,410	78,226	58,666	34,044	49,975	48,969	37,262	23,340	49,750	38,567	33,205	29,155	408,890	190,163
New England	3,457	4,255	3,477	1,465	5,944	938	5,110	4,214	788	1,437	1,740	1,574	3,760	25,759	19,739
Middle Atlantic	26,082	4,373	32,780	10,049	666	20,629	10,419	2,418	4,538	20,718	3,415	3,444	4,196	80,190	21,247
East North Central	9,721	13,954	8,707	10,989	2,623	4,336	5,355	9,798	3,553	3,802	8,707	4,451	4,345	62,541	42,412
West North Central	2,528	2,605	3,796	11,998	787	7,752	3,760	4,174	1,410	1,549	1,739	5,568	2,664	34,639	19,160
South Atlantic	2,887	4,761	9,623	3,341	7,570	3,617	5,151	5,149	2,991	3,659	3,239	2,959	4,859	40,161	22,570
East South Central	2,931	1,243	1,134	675	1,757	3,239	709	1,427	1,111	974	1,436	1,059	1,246	16,895	12,954
West South Central	8,019	7,359	6,463	16,591	11,007	4,313	13,456	2,907	4,193	2,218	9,827	8,481	3,588	65,309	25,963
Mountain	3,907	1,299	2,778	608	409	1,270	392	1,659	1,117	5,212	1,080	672	551	18,366	5,367
Pacific	6,579	11,501	9,468	2,950	3,641	3,881	4,617	5,516	3,639	10,181	7,384	4,997	3,946	63,030	20,751
Public buildings ⁷	3,171	5,508	7,055	5,323	5,577	4,556	4,920	1,767	3,744	3,398	2,769	7,544	3,256	40,699	12,042
New England	91	121	455	1,250	2,289	502	834	355	0	77	182	21	161	3,418	371
Middle Atlantic	1,148	659	488	112	214	219	200	3	10	324	244	1,740	875	4,712	1,493
East North Central	101	475	849	568	684	900	802	386	1,444	1,332	476	1,147	682	8,171	880
West North Central	26	1,500	124	77	535	200	26	86	168	177	222	344	163	1,696	190
South Atlantic	91	648	394	349	30	92	244	237	7	306	871	1,675	84	6,285	988
East South Central	87	209	3,374	417	206	150	166	55	135	17	3	128	10	830	116
West South Central	332	203	496	566	1,023	551	1,842	165	615	314	35	366	296	4,430	665
Mountain	36	341	61	259	113	180	0	99	362	282	181	0	261	2,416	70
Pacific	1,259	1,352	814	1,725	483	1,762	806	381	1,003	569	555	2,123	724	8,741	7,269
Public works and utility buildings ⁸	10,167	15,639	12,715	7,483	16,284	16,942	13,105	12,128	12,889	7,452	18,263	8,294	12,344	143,827	102,241
New England	118	581	309	75	5,113	1,092	2,243	741	2,723	147	2,922	909	1,739	15,086	15,638
Middle Atlantic	3,045	1,839	1,784	671	365	576	518	1,205	608	681	7,202	1,378	1,210	24,968	10,052
East North Central	1,094	2,692	2,889	2,481	1,649	1,211	5,544	5,413	3,541	2,767	2,203	3,100	4,413	35,972	23,383
West North Central	1,055	701	1,762	459	1,035	1,803	508	552	1,036	282	98	810	1,986	8,738	6,108
South Atlantic	2,572	1,556	592	670	1,125	5,347	872	813	1,434	346	759	372	905	19,046	20,037
East South Central	87	315	702	325	410	307	413	51	125	550	1,024	285	84	4,154	862
West South Central	669	2,099	688	208	814	1,241	411	339	740	720	616	59	323	7,648	5,048
Mountain	2	238	155	575	50	499	13	0	158	1,147	455	21	15	3,520	1,456
Pacific	1,525	5,618	3,834	2,019	5,723	4,866	2,583	3,014	2,524	812	2,984	1,360	1,669	24,695	19,627
All other buildings ⁹	13,664	12,787	9,293	5,518	5,751	6,729	9,851	13,338	11,772	11,395	11,933	9,156	9,998	112,491	77,345
New England	841	950	362	138	109	329	598	962	701	694	640	619	705	6,764	5,328
Middle Atlantic	1,690	1,443	1,142	555	398	830	1,195	2,137	1,380	1,204	1,437	1,170	1,309	13,392	9,944
East North Central	3,298	3,501	1,646	670	647	982	1,934	3,509	3,416	2,675	3,282	2,538	2,330	27,556	19,374
West North Central	1,540	1,346	738	241	314	587	1,370	1,033	1,251	1,081	979	860	947	9,961	6,485
South Atlantic	775	858	1,071	392	450	547	560	846	702	664	785	484	749	7,213	5,635
East South Central	301	293	359	154	141	164	225	290	250	367	278	197	251	3,005	2,316
West South Central	814	943	585	369	600	447	622	705	739	529	475	619	500	6,618	5,664
Mountain															

TABLE F-5: Number and Construction Cost of New Permanent Nonfarm Dwelling Units Started, by Urban or Rural Location, and by Source of Funds ¹

Period	Number of new dwelling units started									Estimated construction cost (in thousands) ²		
	All units			Privately financed			Publicly financed			Total	Privately financed	Publicly financed
	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm	Total nonfarm	Urban	Rural nonfarm			
1925 ³	937,000	752,000	185,000	937,000	752,000	185,000	0	0	0	\$4,475,000	\$4,475,000	
1933 ⁴	93,000	45,000	48,000	93,000	45,000	48,000	0	0	0	285,446	285,446	
1941 ⁵	706,100	434,300	271,800	619,511	369,499	250,012	86,589	64,801	21,788	2,825,895	2,530,765	295,130
1944 ⁶	141,800	96,200	45,600	138,692	93,216	45,476	3,108	2,984	124	495,054	483,231	11,823
1946	670,500	403,700	266,800	662,473	395,673	266,800	8,027	8,027	0	3,769,767	3,713,776	55,991
1947	849,000	479,800	369,200	845,560	476,360	369,200	3,440	3,440	0	5,642,798	5,617,425	25,373
1947: First quarter	138,100	81,000	57,100	137,016	79,916	57,100	1,084	1,084	0	808,263	800,592	7,671
January	39,300	24,200	15,100	38,216	23,116	15,100	1,084	1,084	0	223,577	215,906	7,671
February	42,800	25,000	17,800	42,800	25,000	17,800	0	0	0	244,425	244,425	
March	56,000	31,800	24,200	56,000	31,800	24,200	0	0	0	340,261	340,261	
Second quarter	217,200	119,100	98,100	217,000	118,900	98,100	200	200	0	1,361,677	1,360,477	1,200
April	67,100	37,600	29,500	67,100	37,600	29,500	0	0	0	418,451	418,451	
May	72,900	39,300	33,600	72,900	39,300	33,600	0	0	0	452,236	452,236	
June	77,200	42,200	35,000	77,000	42,000	35,000	200	200	0	490,990	489,790	1,200
Third quarter	261,200	142,200	119,000	260,733	141,733	119,000	467	467	0	1,774,150	1,770,475	3,675
July	81,100	44,500	36,600	81,100	44,500	36,600	0	0	0	539,333	539,333	
August	86,300	47,400	38,900	86,108	47,208	38,900	192	192	0	589,470	587,742	1,728
September	93,800	50,300	43,500	93,525	50,025	43,500	275	275	0	645,347	643,400	1,947
Fourth quarter	232,500	137,500	95,000	230,811	135,811	95,000	1,689	1,689	0	1,698,708	1,685,881	12,827
October	94,000	53,200	40,800	93,540	52,740	40,800	460	460	0	678,687	675,197	3,490
November	79,700	48,000	31,700	78,835	47,135	31,700	865	865	0	584,731	578,324	6,407
December	58,800	36,300	22,500	58,436	35,936	22,500	364	364	0	435,290	432,360	2,930
1948: First quarter	167,200	101,000	66,200	165,162	99,112	66,050	2,038	1,888	150	1,226,259	1,209,826	16,433
January	50,000	30,400	19,600	49,197	29,618	19,579	803	782	21	361,994	355,356	6,638
February	47,200	28,800	18,400	46,045	27,774	18,271	1,155	1,026	129	347,851	338,628	9,223
March	70,000	41,800	28,200	69,920	41,720	28,200	80	80	0	516,414	515,842	562
Second quarter												
April	92,000	54,300	37,700	91,726	54,062	37,664	274	238	36	682,502	680,329	2,173
May ⁷	97,000	56,400	40,600	95,792	55,667	40,125	1,208	733	475	725,857	714,420	11,437

¹ The estimates shown here do not include temporary units, conversions, dormitory accommodations, trailers, or military barracks. They do include prefabricated housing units.

These estimates are based on building-permit records, which, beginning with 1945, have been adjusted for lapsed permits and for lag between permit issuance and start of construction. They are based also on reports of Federal construction contract awards and beginning in 1946, on field surveys in nonpermit-issuing places. The data in this table refer to nonfarm dwelling units started, and not to urban dwelling units authorized, as shown in table F-3.

All of these estimates contain some error. In 1948, for example, if the estimate of nonfarm starts is 50,000, the chances are about 19 out of 20 that an actual enumeration would produce a figure between 47,600 and 52,400.

In 1946 and 1947, the range of error was approximately twice as large. The reduction was achieved by improvements in estimating and survey techniques.

² Private construction costs are based on permit valuation, adjusted for understatement of costs shown on permit applications. Public construction costs are based on contract values or estimated construction costs for individual projects.

³ Housing peak year.

⁴ Depression, low year.

⁵ Recovery peak year prior to wartime limitations.

⁶ Last full year under wartime control.

⁷ Preliminary.